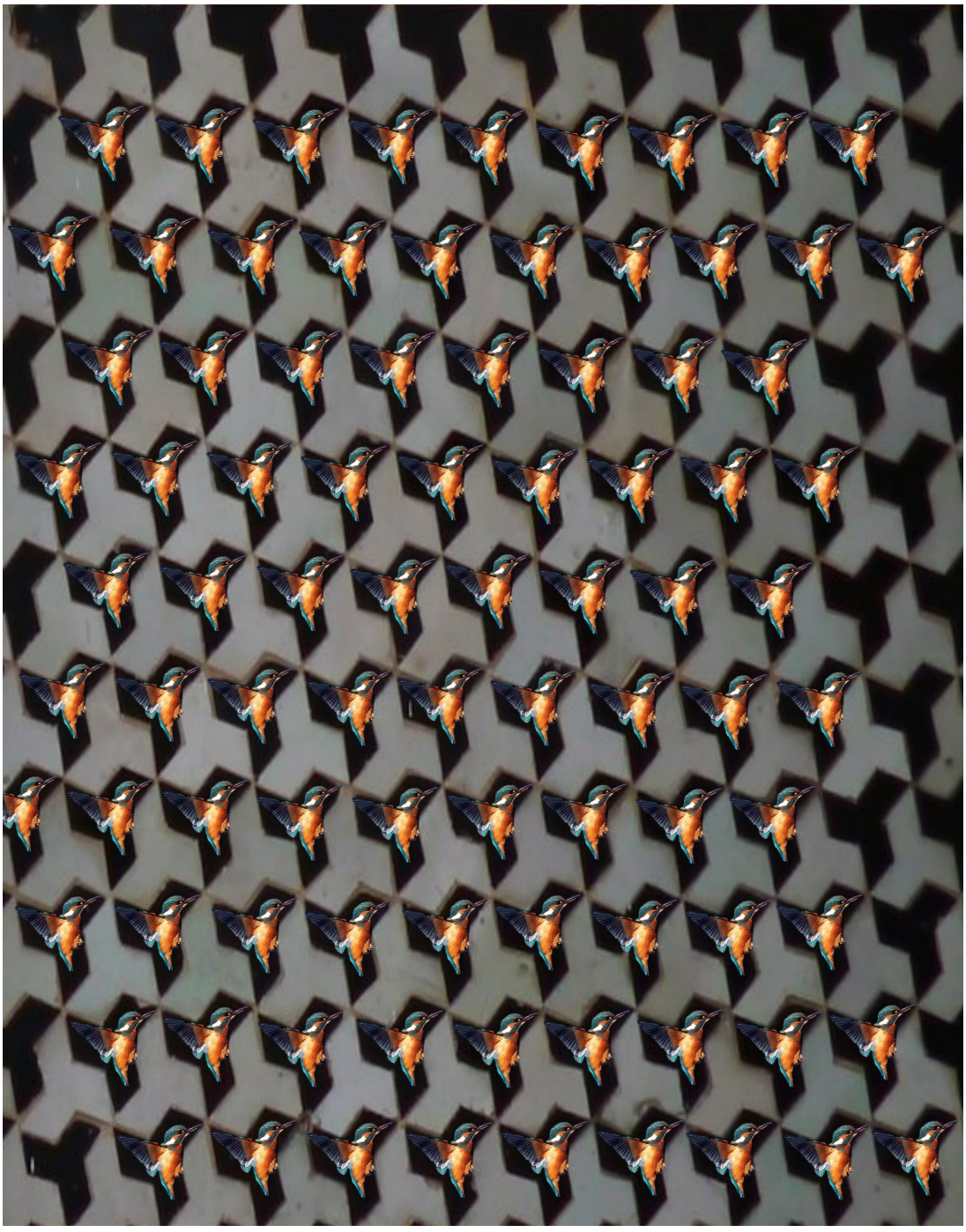
EDUCATIONAL

Geometry has never looked so spicy !

Farouk Elmerrakchi فَارُوق المرَّاكشي

"*You've stepped into the vibrant heart of Marrakech...*



Prepare to be enchanted ! "

The Red City : Full of Wonders and Surprises !

Welcome, Young Explorer !

Marrakech is opening its doors for an extraordinary journey, where every alley tells a story, and every monument hides a secret. Get ready to uncover fascinating tales, explore magical places, and have fun with exciting activities and creative games. Whether you're a kid, a teenager, or an adult, this book is designed to fill your heart with awe and wonder !

Throughout this adventure, you'll dive into captivating themes, enriched with **quizzes**, **interactive games**, and **coloring pages** :

- **Geometry** : Discover the secrets of the shapes and patterns adorning the palaces and mosques of Marrakech, and learn how to create your own.
- **History** : Travel back in time to explore the events, places, and people that shaped this legendary city.
- **Theater** : Step into the world of storytellers, traditional plays, and living legends that keep the city's soul alive.
- **Music** : Let yourself be carried away by the enchanting rhythms of Moroccan folklore and learn about iconic instruments.
- **Technology** : Have fun with challenges inspired by the craftsmanship, bustling souks, and mesmerizing Moroccan geometry.
- **Economics** : Discover the secrets of bargaining in the souks and become a savvy merchant as you learn the tricks of the trade.

Are you ready to jump in ? Here are some fun challenges to kick things off :

- Can you guess why Marrakech is called the "**Red City**" ?
- Would you like to master the art of negotiation like a real souk merchant ?
- Can you create patterns as stunning as those in the **Zellij** ?

Let's dive into an unforgettable experience !

Happy New Year 2025 !

The Kutubiyya : The Tower Watching Over the City

Mâallem Bassou

Welcome, Young Explorer ! مْرْحبَا سيدي المْتعْلّم و لَلّا المتعلّمَة

I am **Mâallem Bassou**, your guide on this fabulous adventure through the heart of Marrakesh. I know every corner of the city, every carved stone, and even the secrets whispered by pigeons on the rooftops !

Today, I'll take you to discover the majestic **Kutubiyya**, the grand lady of Marrakesh, standing tall as the city's sentinel. At **77 meters** tall, it's like Marrakesh's version of a GPS. Except, unlike your phone, it doesn't lose signal or need a charger !

Do you know why it's called Kutubiyya ?

The name "**Kutubiyya**" comes from "**Kutubiyyine**," which means "**scribes**" in Moroccan Darija (our quirky dialect !). Picture a bustling marketplace around the mosque, where scribes sold their **precious manuscripts** filled with stories, knowledge, and—who knows—maybe a secret recipe for the perfect Bissara !

So, buckle up, because every stone of the Kutubiyya has a story to tell... and I'm here to share them all with you—with a dash of humor, of course !

Mâallem Bassou

The **Kutubiyya Mosque** is renowned for its stunning facades adorned with **interlaced arch patterns**. Take a moment to observe the picture. What do you see ? What stands out the most to you in these patterns ?

Share with me how you feel, because in every detail, there's a story waiting to be uncovered.

1. Observing the Arches

- Take a close look at the patterns below :

- How many arches can you count ?

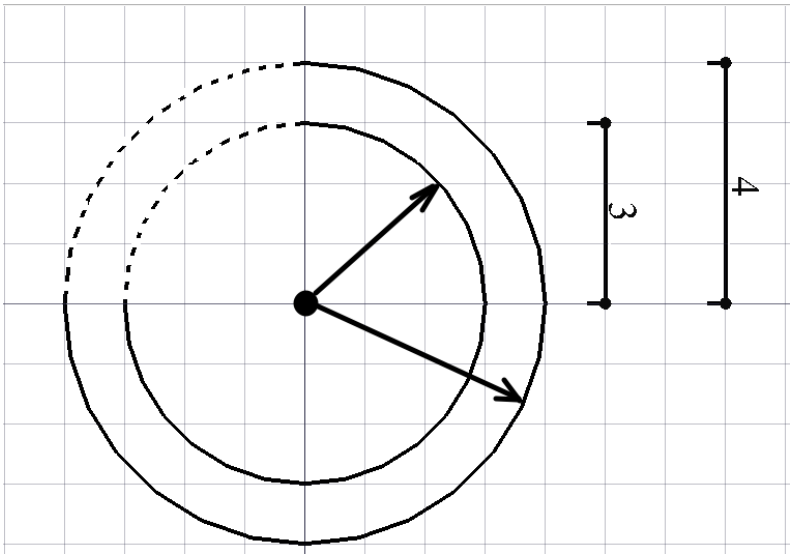
Think and Write

- Can you spot any repeated shapes or symmetries ?

Think and Write

2. Drawing the Arches

- Observe the two circles below :



- What's the difference between the two circles ?
  Think carefully : one looks bigger, the other smaller—but why ?

Think and Write

Mâallem Bassou

"Stay calm, stay focused, and remember : **perfect arches** aren't going anywhere, so neither should you !"

- **Your turn !** Grab a **red** pen and trace :
  - The dashed arc of the **big circle**.
  - The dashed arc of the **small circle**.

Mâallem Bassou

Psst... Come closer, here's one of my secrets. A circle has :

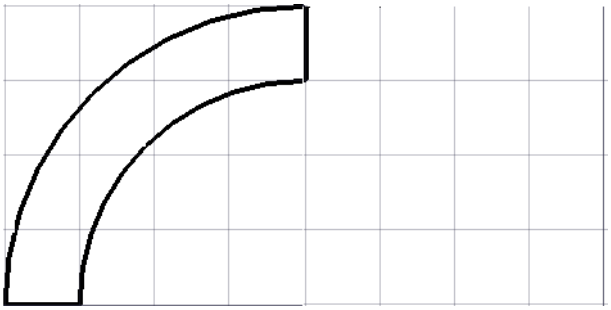
- A **Center** : the point in the middle of the circle, like the conductor of an orchestra.
- A **Radius** : the distance between the center and any point on the circle, like a stretchy rubber band pulling evenly in all directions—but not too much, ouch !

The center is represented by a **dot**, and the radius by an **arrow** (beep-beep !).

The bigger the radius, the larger the circle—think XXL-sized circle !

3. Coloring the Arch

- Here are the two arches we kept from the previous circles :



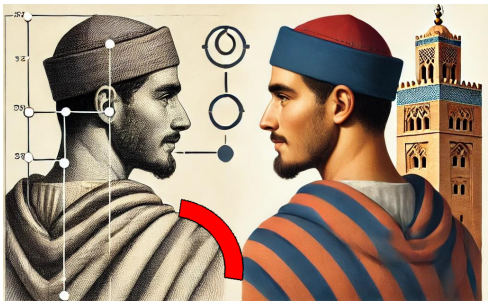
- Color the space between these two arches in **red**. Red is a traditional Moroccan color, symbolizing warmth and vitality.

- Draw the **center** of each arch as a **dot**, then represent the **radius** with an arrow starting from the center and pointing to the arch.

Mâallem Bassou

Psst... Let me share another secret with you :

In Moroccan craftsmanship, the arches you just colored are called : **Ketef** كْتْف, which means "**Shoulder**" in Moroccan Darija.



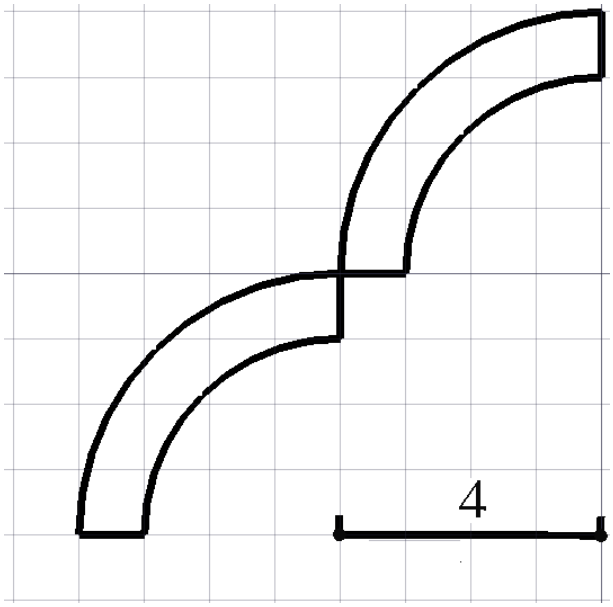
A Glimpse into Moroccan Culture

In Moroccan tradition, the shoulder symbolizes both **strength** and **protection**. Elders used to say that a person with "**strong shoulders**" is someone capable of supporting their family.

When a Moroccan says : ***"Maa andek ketefs"*** مَا عْنْدْك كْتَّاف ("You don't have shoulders !"), it means you're not **hardworking** enough or that you lack endurance. A real lesson for becoming a true Mâallem !

4. Arch and Step

- If we draw two sets of **arches** slightly offset with a small shift in their centers, we get this beautiful pattern :



- Place a dot to mark **center A1** of the first small arch, then another dot for **center A2** of the second small arch.
- Count the number of squares between centers **A1** and **A2** :

Think and Write

Horizontal Shift : ..... Squares

Vertical Shift : ..... Squares

- Draw an arrow to represent the **radius** of the first small arch, and another arrow for the **radius** of the second small arch.
  Do you think these two arches have the same radius ?

Think and Write

Mâallem Bassou

Psst... Come closer. I'm about to share my third secret with you :

By drawing these offset arches, the Moroccan artisan discovers a new shape called "**Darj** دْرْج," which means "**Step**" in Moroccan Darija.

Why such a special name ? Let me explain, but keep it to yourself... we wouldn't want the stars to get jealous :

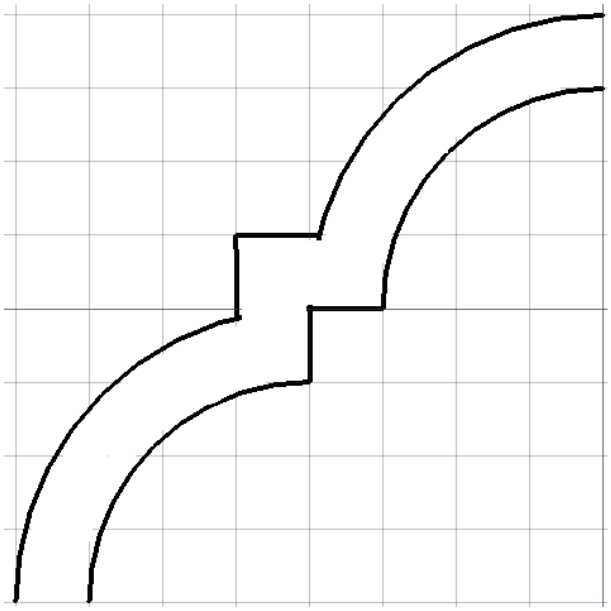
"Look closely... It's no coincidence that these Darjs resemble the steps of a staircase.

Imagine yourself in a grand Moroccan palace. Each step takes you higher, bringing you closer to the stars. Each **Darj** is a stage, a step toward a new mystery, a new discovery hidden within the palaces of Morocco's ancient dynasties.

With every step, we rise, we admire, we dream... That's the **magic of the Darjs** !"

5. Arch, Step, and Coloring

- By tracing the two steps and erasing the intersection of the arches, we get this beautiful design :



- Coloring Mission : Use the color **red** to fill in the pattern created by the arches and the step. Take your time, great arches aren't built in a day, and neither is your street cred as a craftsman !

Mâallem Bassou

You know, I always say : '**Beauty hides in the details**... but if that doesn't work, maybe you just need another glass of mint tea !

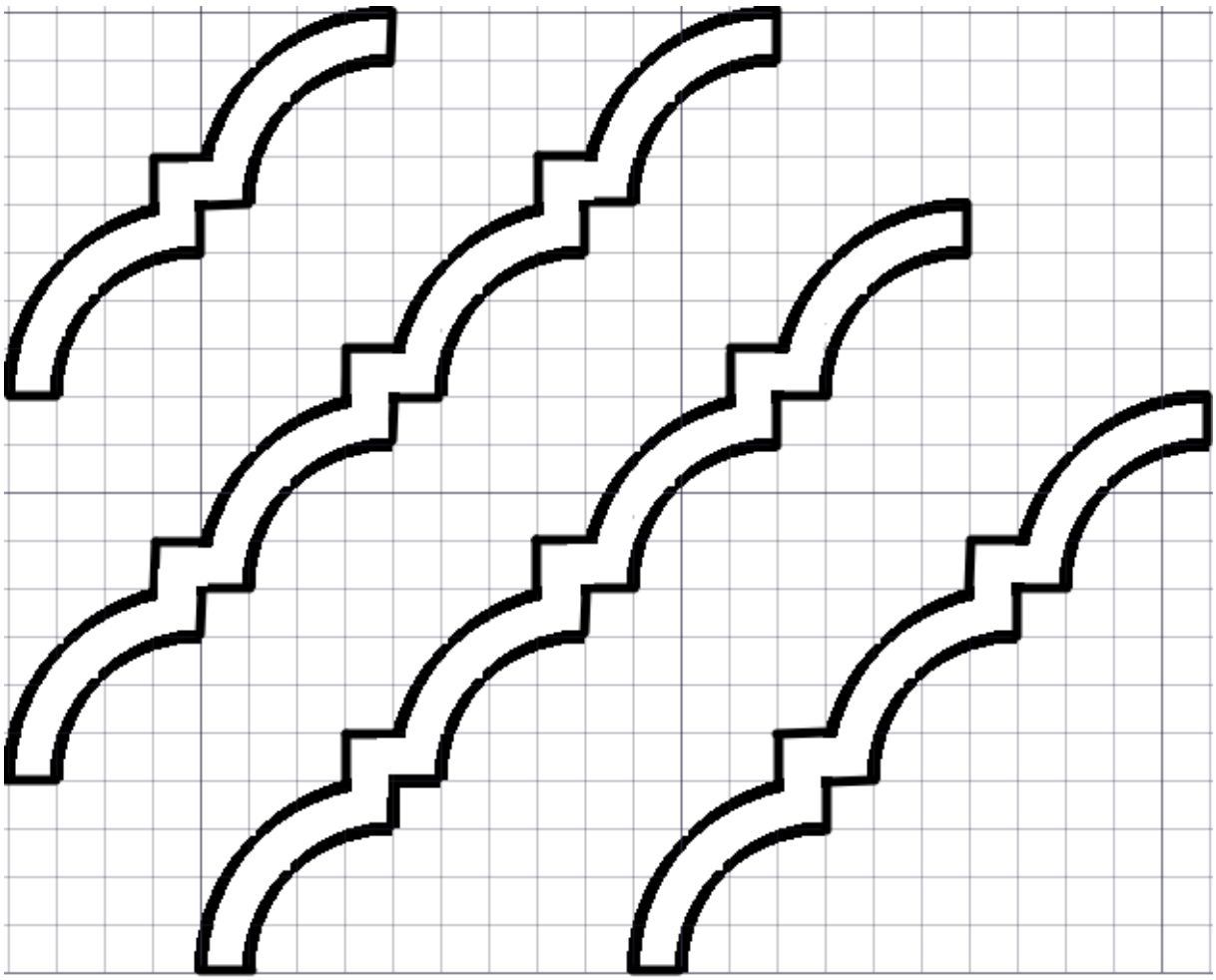
What you're holding in your hands isn't just a simple coloring activity. Oh no ! It's an adventure. Each **darj** is a step laid down by the ancients, and I'm here to help you leave your **mark**. You see, I'm entrusting you with a part of their dream !

And now, imagine this : if we shift these arches and steps just a little further to the right... a little more... what do we get ?

Go ahead, take a peek to the right and open your eyes wide : **the show is about to begin** !

6. Arches and Steps Reaching for the Sky

- Color the series of **Arches** and **Steps** in **red** as they seem to climb toward the sky. Take your time to carefully follow each line.



- Now, have fun marking the **Center** of each **Arch** with a dot. You'll see a beautiful column of perfectly aligned centers appear, like a magical ladder !

- Imagine the moonlight shining on these centers... Each step seems to invite you to climb gently into a world of beauty and harmony.

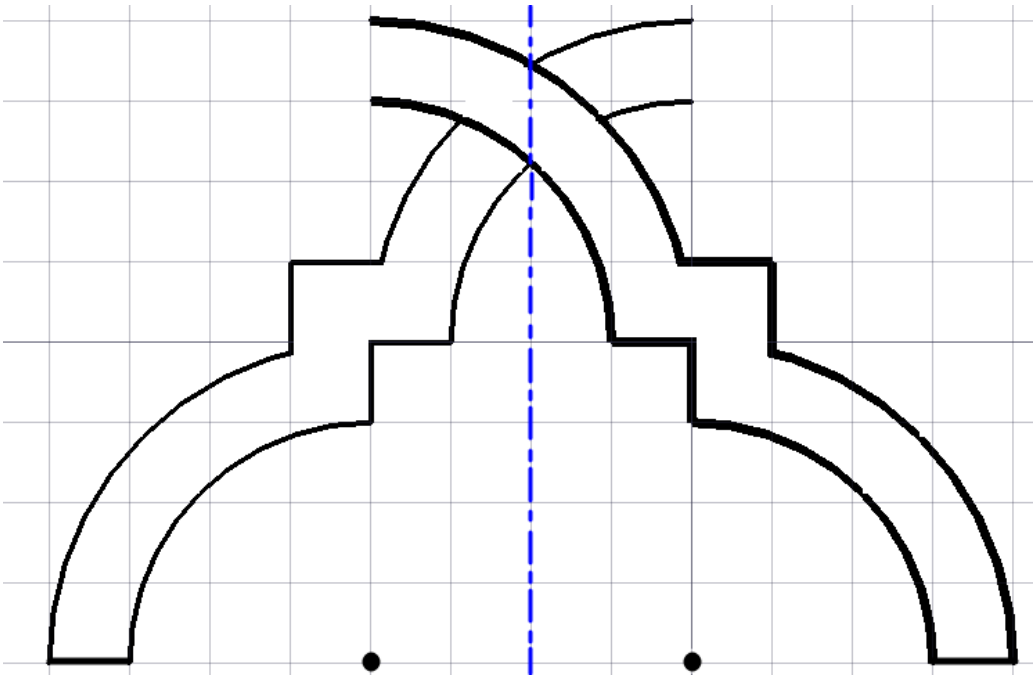
  So, grab your pencil and follow the Maâlems' path, because their magical ladders now belong to you !

7. Right, Left, Intersection, and Overlap

Mâallem Bassou

Psst... Listen closely : "What you create on one side, you can repeat on the other ! Symmetry is like a magic mirror : everything you make is reflected. And between us, *it's every lazy artisan's favorite trick to do half the work !*"

- Color the *right arc* in **green** and the *left arc* in **red**.



- Identify the center of the first *left arc and step* (with a dot) and the center of the first *right arc and step*.
- Measure the distance between these centers and the **Blue** axis : How many squares do you count ?

Think and Write

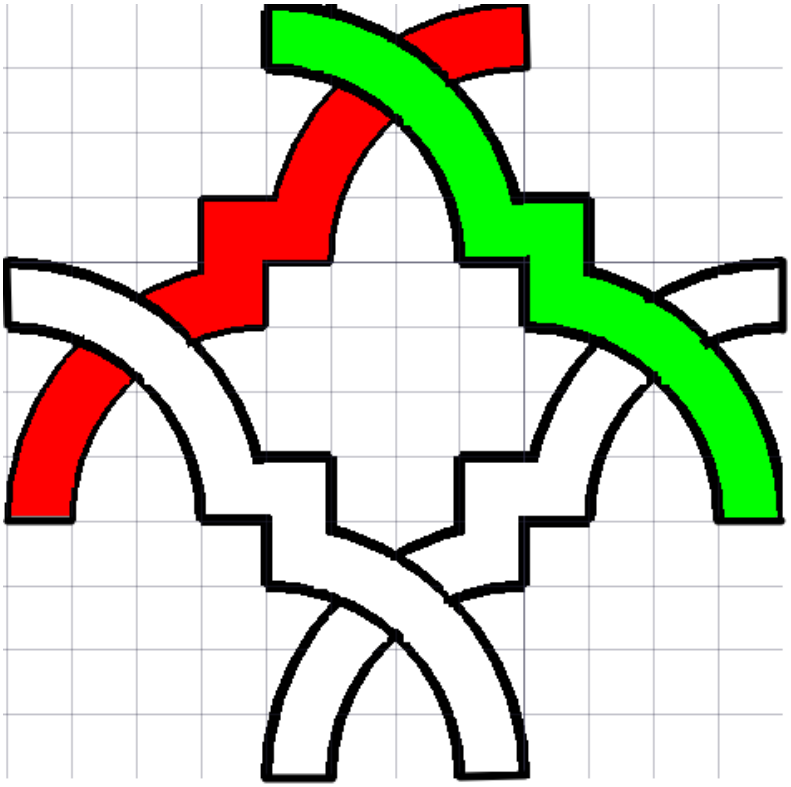
Horizontal Shift : ..... squares
Vertical Shift : ..... squares

Mâallem Bassou

In the art of overlapping, every shape must be strong enough to stand out on its own, yet humble enough to make room for others. Balance is key.
The ancients used to say : 'The left side and the right side are like two friends supporting each other. Without balance, everything falls apart.'

8. The Colors of Morocco : Red and Green

- Complete the coloring by filling in the **green** arc that needs to be green, and the **red** arc that needs to be red.



Mâallem Bassou

"Did you know that, in the past, Moroccan Mâallems were also like little wizards ? Oh yes ! They made their own pigments, and it wasn't an easy task !

The vibrant and majestic **red** was extracted from secret plant roots and precious minerals collected from the slopes of the Grand Atlas Mountains.

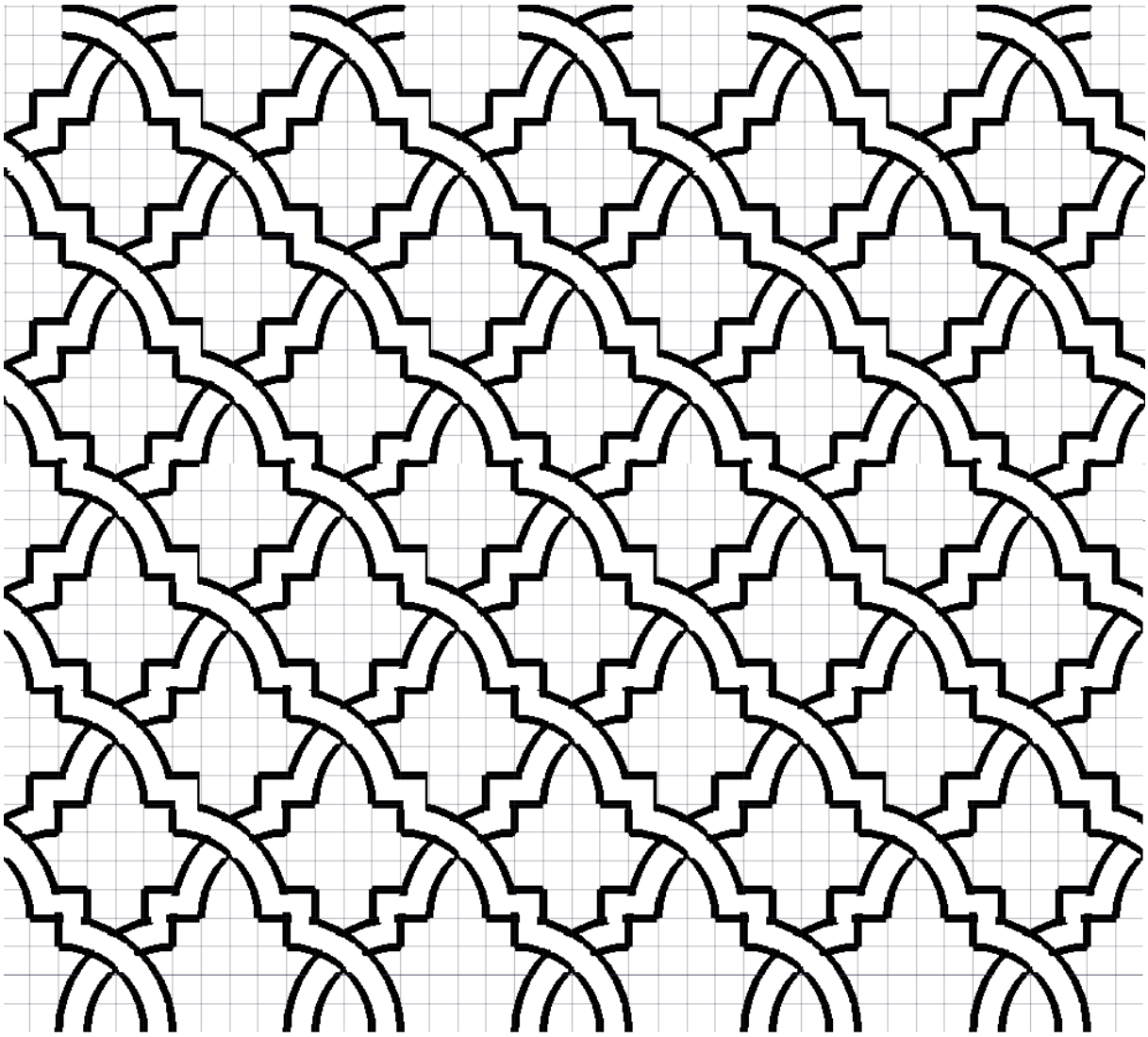
The **green**, on the other hand, came from special leaves, soaked in mysterious baths (which, between us, didn't always smell so great).

The ancients believed every color had a soul. Get it right, and you're a legend. Get it wrong ? Well, congratulations—you're now the official mascot for amateur hour !

So, no rushing ! Take your time, breathe deeply, and color each detail with love.

9. The Sebka of the Almohads

- Please color the following design :

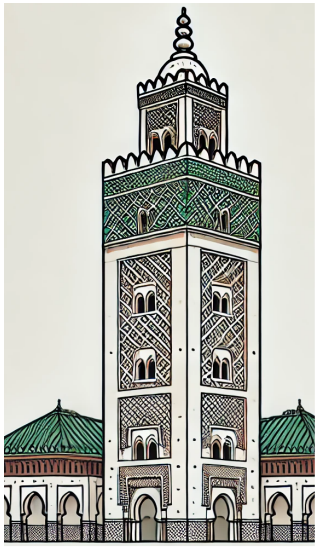


Mâallem Bassou

Long ago, during the reign of the **Almohads**, Morocco extended across North Africa and into the lands of Spain. These visionary rulers had a deep respect for art and architecture, leaving behind timeless masterpieces like the majestic **Kutubiyya Mosque** in Marrakech.

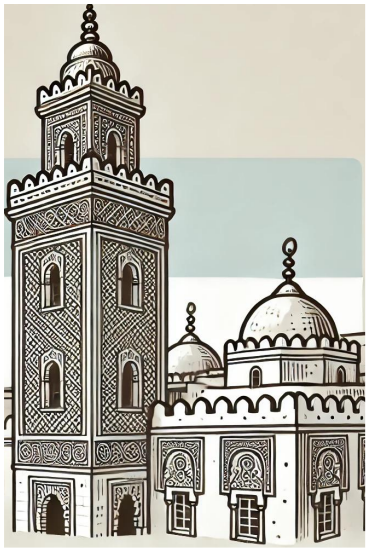
The Almohads had a particular passion for the **Sebka patterns**, those stunning **interlaced arches** that seem to stretch infinitely. To them, every curve and crossing symbolized the grandeur of the divine—a silent tribute to the oneness of God and the perfect harmony of the universe.

10. The Sebka in Marrakesh and Beyond

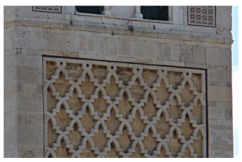


Kasbah, Marrakesh, Morocco

Giralda, Seville, Spain



Kasbah, Tunis, Tunisia



Mâallem Bassou

The Kasbah Mosque in Tunis is one of the last remaining memories of the time when the Almohads ruled Morocco and North Africa. Back then, the city was protected by giant walls, and this mosque served as a place of prayer for the governors.

But the Almohads didn't stop there ! Far away in Spain, they built a grand mosque called the **Giralda of Seville**. Around the same time, I, **Ben Bassou**, the *Alarife* العريف, or chief architect, had the honor of constructing the magnificent **Koutoubia Mosque** in Marrakech for my Emir, **Abû Ya'qûb al-Mansûr**, in 1185.

And do you know another marvel they left behind ? The breathtaking **Kasbah Mosque of Marrakech**, also known as **Moulay El Yazid Mosque**. It is located at the heart of the royal citadel, where the Emirs once lived.

The Almohads were incredible builders who dreamed of reaching the heavens with their magnificent mosques. Every stone, every arch, and every decoration reflects their love for art and beauty !

Jamaa El Fna : A Grand Open-Air Theater

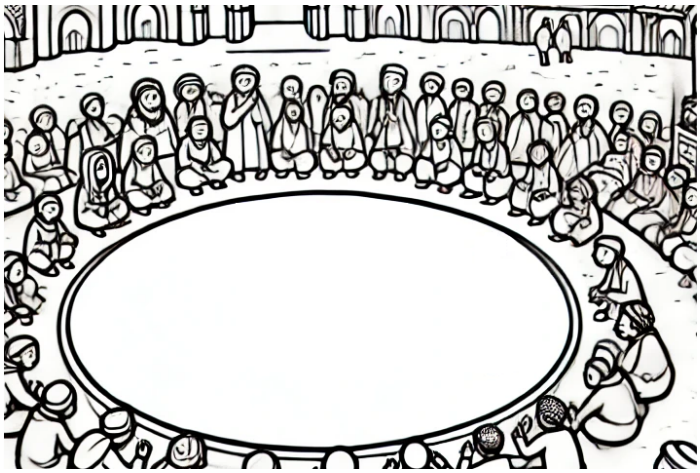
Mikhi El fennane

Bezzaf ! Finally, you're here, young friend ! I almost fell asleep waiting for you !

My name's **Mikhi**, the certified laugh-master of Jamaa El Fna. And yeah, it's Mikhi, like **Mickey Mouse**—except I don't need oversized ears to catch the punchlines. Around here, they come straight to me !"
Welcome to the famous **Jamaa El Fna**, a place where evenings transform into a grand spectacle. Here, artists create performance circles called "**Halqa** الحلقة," where storytellers, musicians, dancers, and comedians enchant the audience with their talents.

1. The Circle : The Halqa

- Imagine yourself in the heart of the Halqa ! Draw a storyteller in the center of the audience circle. Feel free to add a musician or even a dancer if you'd like !



Mikhi El fennane

You know, being a great storyteller is an art : you need **a voice** that captivates, **gestures** that mesmerize, and **an imagination** that transports people. A true master of the Halqa can turn a simple audience circle into an open-air theater.

So, are you ready to join the circle of Halqa masters ? With **my tips**, you'll soon be the Mâallem of laughter and applause. Come on, the stage is yours !

2. A Story : Hajjaya الحجّاية

- Can you invent the beginning of a story straight from your imagination ? Try to come up with an idea that will captivate your audience in the first few seconds.

Think and Write

- Great job ! Now that you've tried for the first time, read this tip from Mikhi and try again using his invaluable advice :

Mikhi El fennane

"Psst... lean in !" Did you know there's a secret trick that all great storytellers use to captivate their audience right from the start ? Imagine you're in a big room full of people talking. . .

But you step forward gently and say :

"Do you want to hear a secret no one knows ?" Or you might start with :

"Imagine a place where..."

At that moment, everyone stops, hanging on your words, eager to hear more !

My Tip :
"Remember, **magical words** are often **the simplest ones**.
An intriguing question or a mysterious phrase opens the door to a secret world... a world where everyone wants to go !"

Think and Write

- Try telling the following story to your friends :

Passage

Once upon a time, in Jamaa El Fna, a place where anything could happen. One evening, as the sun gently set. . . " an old man appeared, wrapped in a large **black Jellaba**. The old man said to the people :

"*I've heard of a treasure. . . A treasure hidden somewhere beneath this very square. . . ! This treasure is so ancient, so valuable, that people have dreamt of it for centuries. . . But beware ! Only those who know the secret of the interlaced arches can find this treasure. Do you want to know where it's hidden ?*"

- Now, through voice modulation, gestures, and expressions, Mikhi will show you how to captivate the audience.

Mikhi El fennane

Look to the sky as you say : "*Imagine. . . once upon a time, in Jamaa El Fna, a place where anything could happen.*"

Then, **lower your voice, as if sharing a precious secret :** "*an old man appeared, wrapped in a large black Jellaba, with a deep gaze, as if carrying centuries of secrets.*" To bring this mysterious old man to life, use a **low, resonant voice** to draw in your listeners :

"*They speak. . . of a treasure. . .*," **follow with a pause, then sweep your gaze across the square, spreading your arms wide as you say :** "*A treasure hidden somewhere beneath this square. . . This treasure is so ancient, so valuable, that people have dreamt of it for centuries. . .*"

Finally, **raise your index finger for a serious, direct warning :** "*But beware !*" Look into the eyes of your audience for full focus : "*Only those who know the secret of the interlaced arches can find this treasure.*" Then, lean in and whisper softly :

"*Do you want to know where it's hidden ?*"

3. The Gnaouas

- Gnaoua musicians often wear bright, decorated outfits adorned with patterns and beads. Imagine their attire and color this image to bring them to life :

A Glimpse into Moroccan Culture

The Gnaouas, true guardians of an ancient musical tradition, are more than just musicians. Originating from the regions of present-day Mali, Burkina Faso, and Senegal, they are descendants of slaves who served as the **Boukhari**, the royal black guard of Moroccan Sultans.

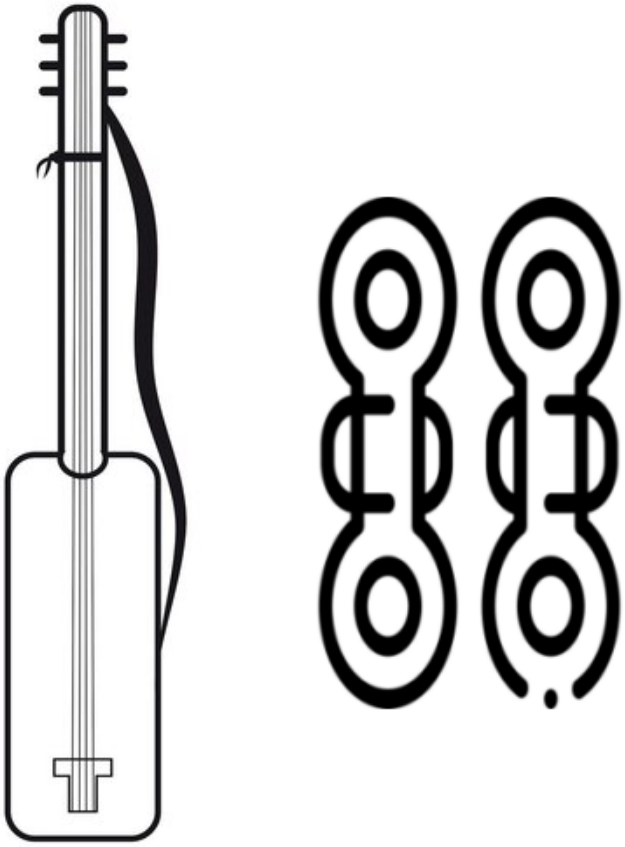
Their enchanting music accompanies fascinating rituals, especially during the mystical night ceremonies called **"Lila de derdeba"** لِيلَة دْرْدبة (in Moroccan Darija, it means *"Night of Possession"*). These mystical nights are marked by chants, hypnotic dances, and melodies played on unique instruments like the **Guembri** and the **Qraqebs**.

These rituals aim to invoke protective saints, renowned for their extraordinary powers : expelling demons, healing ailments, or even revealing hidden treasures. Perhaps the Gnaouas hold the secret of the interlaced arches ?

- Do you know the names of the Gnaouas' instruments ? Write them here :

Think and Write

- Color the two main instruments of the Gnaouas :



- Look closely at the **Guembri**. What geometric shapes do you see on it ?

Think and Write

- What do the **Qraqebs** remind you of ?

Think and Write

- Build Your Guembri and Qraqebs :

Guidelines :

Materials for the Guembri :

- A cardboard roll (like from paper towels)
- Rubber bands (to mimic strings)
- A small piece of fabric to cover the roll
- Markers or crayons for decoration.

Materials for the Qraqebs :

- Two metal jar lids.
- Adhesive tape to connect the two pieces.
- Markers for decoration.

Instructions :

- **Guembri :** Cover the cardboard roll with the fabric to mimic the skin, then stretch the rubber bands around it to represent the strings. Decorate the roll with patterns inspired by Gnaoua art.

- **Qraqebs :** Hold the two metal lids together with adhesive tape. Decorate the edges and practice producing sounds by tapping them gently together.

The Walls of Marrakesh : A Fortress of Protection

1. The Walls and Gates : Bibans

Mâallem Bassou

The fortified walls of Marrakesh, pierced by **19 Bab** (Bab بَاب in Moroccan Darija means **Gate**), stretch over **19 km** and are flanked by **200 watchtowers**. Standing **8 to 9 meters tall**, they are up to **2 meters thick**.

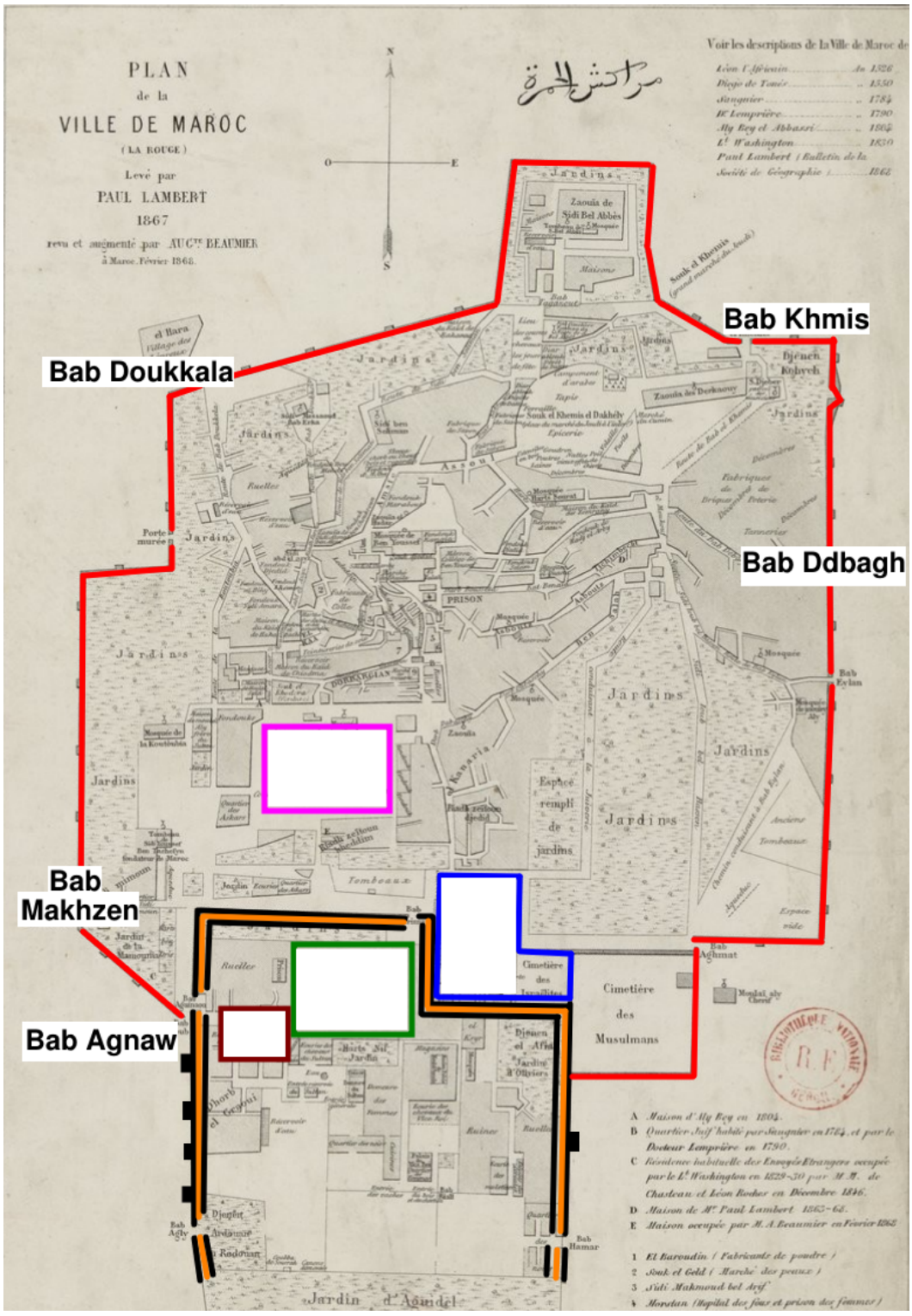
Do you know why the walls are so thick ? So that even if you bump into them, they'll stay standing... and you, not so much !

The walls are built using a mixture of clay, lime, and limestone, giving them their iconic **reddish hue**, sourced from the Gueliz hill.

- Why do you think Marrakech is nicknamed the "**Red City**" ?

Think and Write

- Look closely at the map of Marrakech drawn by Paul Lambert in **1867**. What can you discover ?



- Can you name some of the iconic gates of Marrakech ?

Think and Write

Mâallem Bassou

Ah, Marrakesh, our proud city... built by **Yusuf ben Tashfin**, leader of the noble Tuareg Saharan warriors, the **Almoravids**. He dreamed of a city inspired by the splendor of Cordoba in Spain... and his dream became a reality.

Inside the walls :

- The main gate, **Bab Makhzen**.
- The majestic **Palace of Stone**, which once stood where the famous Kutubiyya now stands.
- The illustrious **Scribes of the Emir of the Faithful**, the **Kutubiyines**, who stood proudly opposite the palace, devoted to drafting royal charters.
- The grand **Jamaa El Fna square**, the beating heart of Marrakesh, majestically separating **the seat of power** from **the life of the people**.

Later, the city was conquered by the formidable **Mahdi ben Tumart**, leader of the Atlas Amazigh, the **Almohads**. With a bold vision, he demolished the Almoravid Palace of Stone to build the magnificent **Kutubiyya Mosque**.

In the southern part of Marrakech, he constructed the **Kasbah**, meaning "fortress" in Moroccan Darija. This became the heart of the Almohad Empire, a dazzling realm spanning **North Africa**, **the Sahara**, and reaching as far as **the Pyrenees** in Spain.

Inside the Kasbah :

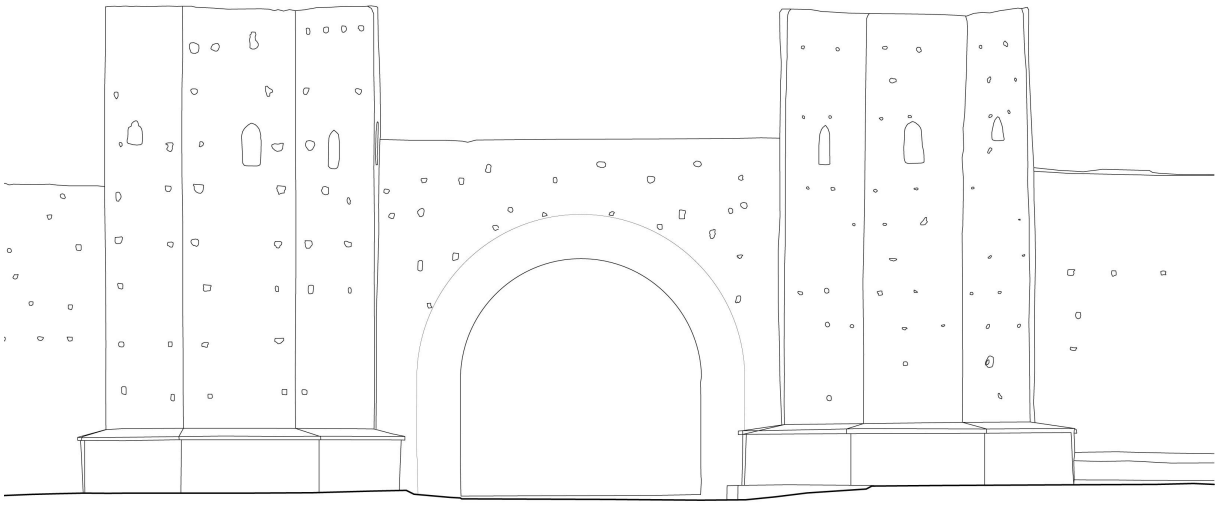
- The main gate, **Bab Agnaou**.
- The **Kasbah Mosque**, **brown**.
- The Makhzen Palace (now the **El Badi Palace**), **green**.
- The **Mellah**, adjacent to the Kasbah, the Jewish Quarter, protected by the Kasbah, **blue**.
- The grand **Jamaa El Fna square** in **pink**.

And now, I, Ben Bassou, raise my arms with pride and exclaim :

"*Glory to my Emir, **Abû Ya'qûb al-Mansûr**, who made Marrakesh a resplendent capital and the Almohad Empire a model of greatness !*"

2. The Gate of Makhzen بَاب المَخزن

- Add color to the magnificent Gate of Makhzen to restore its former glory.

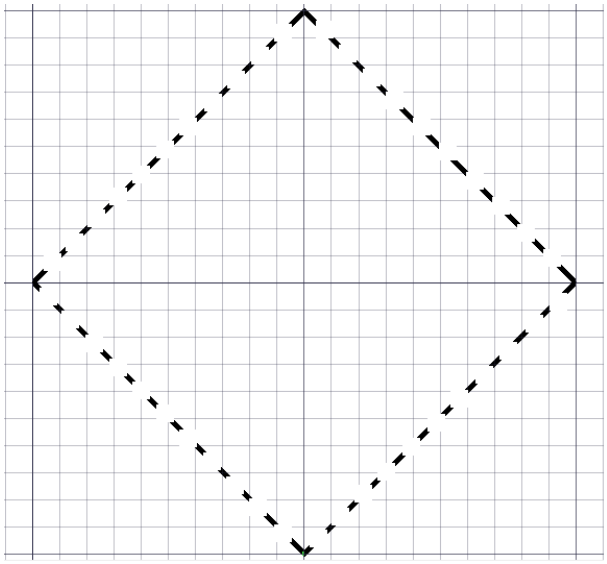


- This gate has preserved its two octagonal towers, elegantly framing it.

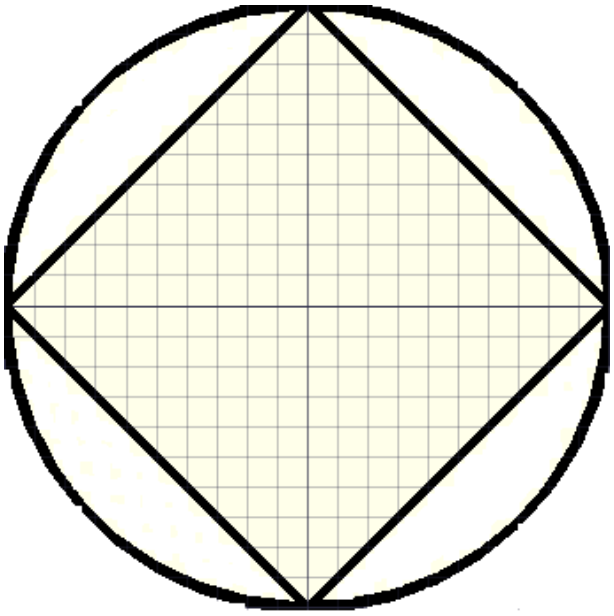
Mâallem Bassou

Did you know ? Designing an octagonal shape is far more intricate than building a simple square tower. *Come closer...* Let me reveal a precious secret of master builders.

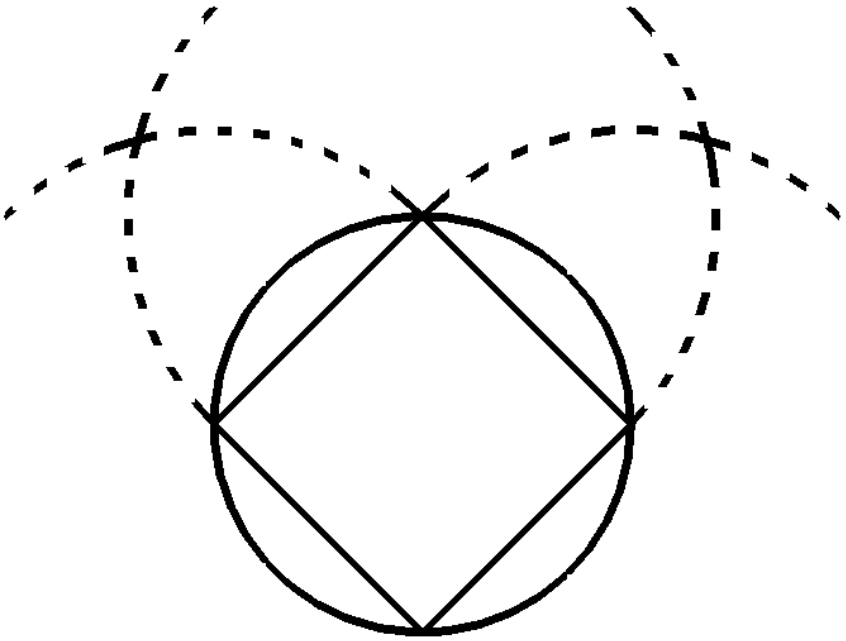
- To build a square tower, you simply draw four straight lines forming right angles—90 degrees. Easy, right ?



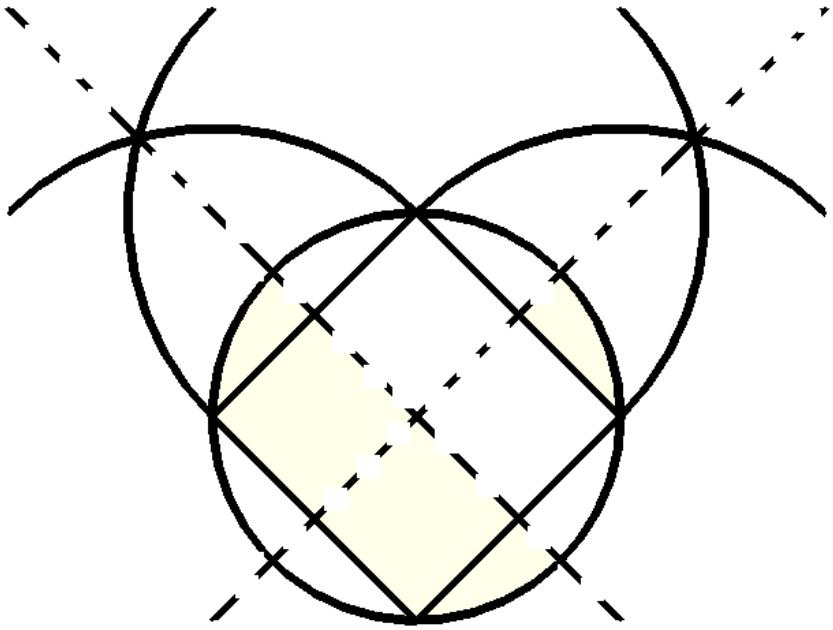
- The square divides the circle into four equal parts. Take your pencils and color the space between the circle and the square to highlight this first step !



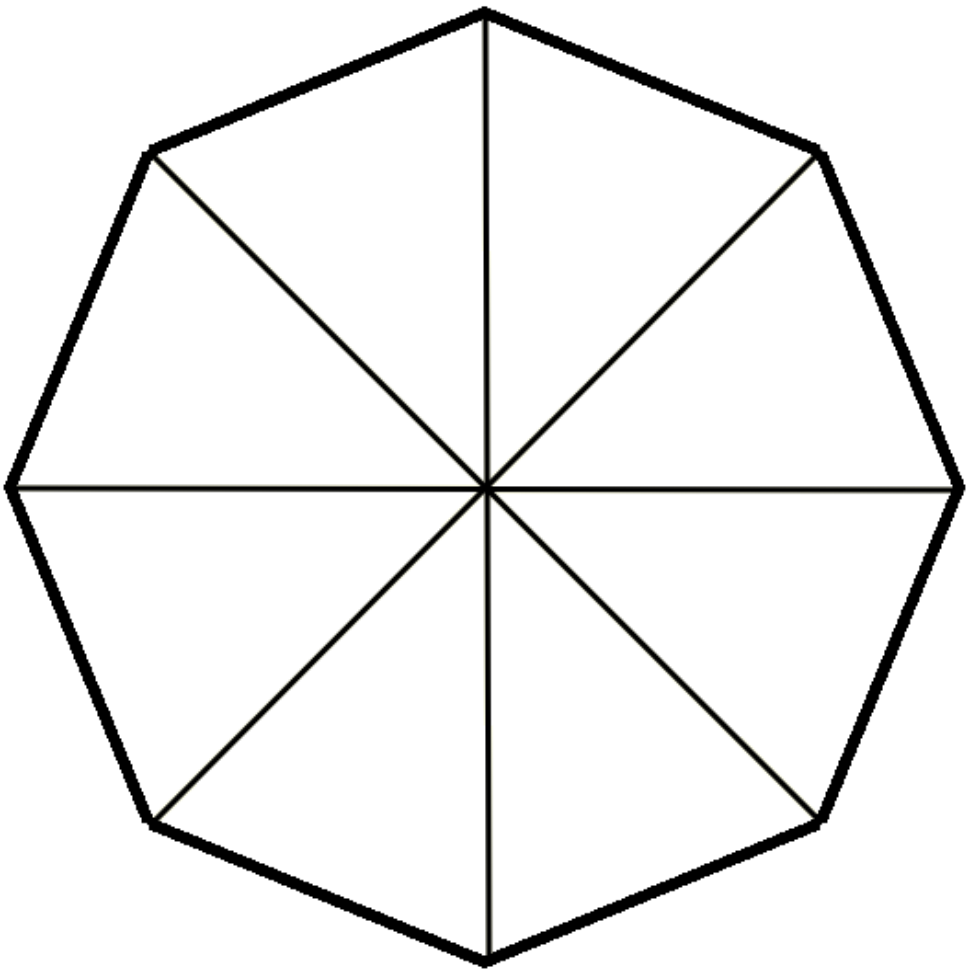
- But to build an octagonal tower, you must go further : divide the circle into eight sections instead of four. That's where the magic begins !



- Using arches, we draw lines dividing the circle into eight equal parts. See how every detail matters !



- Finally, color the eight sections of this octagon to reveal its full splendor. Admire the result : a perfect base for a majestic tower !



3. The Gate, Bab Khmis, and Polylobed Arches

- Every gate has both an interior and exterior façade. Take a closer look at the exterior façade of Bab Khmis :

- Do you notice any new patterns that catch your eye ?

Think and Write

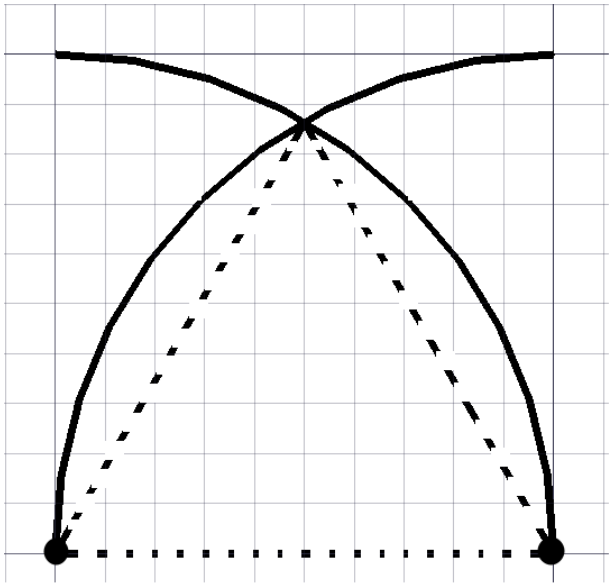
Mâallem Bassou

Ah... Behold this wonder, the legendary gate "Bab Khmis" with its **polylobed arch**, adorned with tiny lobes dancing as if they're celebrating around the main arch. A true gem ! It's like the stones here took salsa lessons !

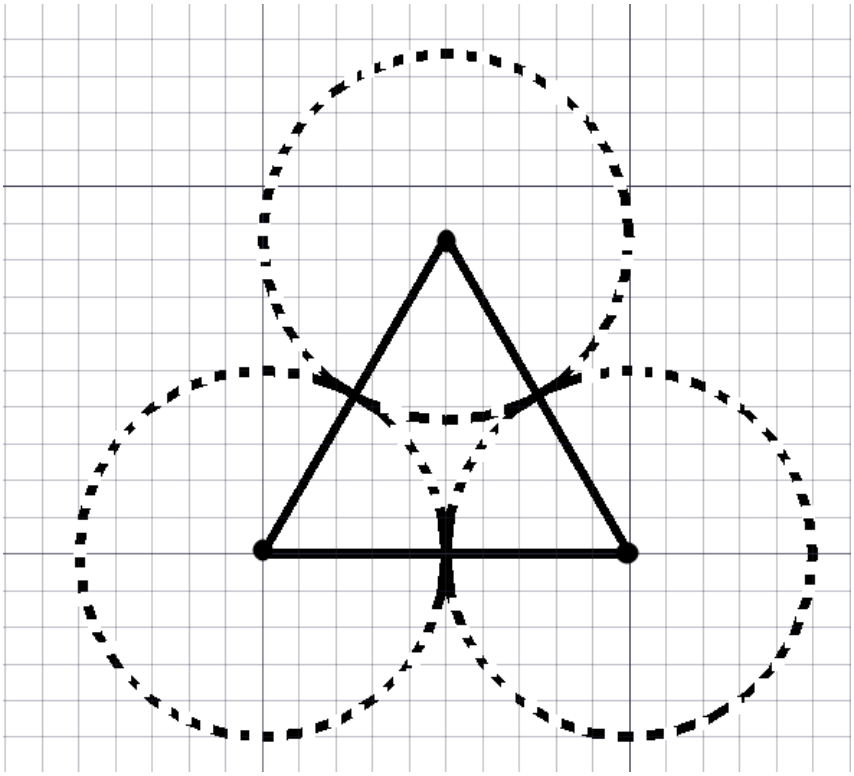
But wait, do you want to know what makes this arch so unique ? Get ready : it's all about **the art of overlapping**. Yes, yes, the ancient Maâllems used to say that the right and left arches are like two inseparable old friends, always sharing secrets. And their big secret ? It's the **equilateral triangle** !

Why 'equilateral,' you ask ? Because with the magic of every curve, we get a triangle where **all sides are exactly the same length**. And thanks to this ingenious detail, the polylobed arch shines with unmatched symmetry and elegance. Who would have thought that a simple triangle could create such wonders ?

- Remember the two interlaced arches we drew earlier. Could you complete the equilateral triangle ?



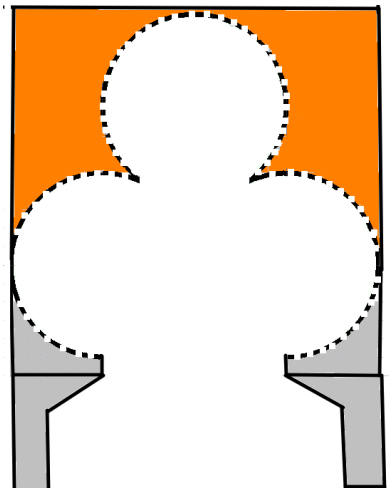
- After erasing the two friendly arches, I drew three circles. Could you complete these three circles ?



- Can you measure the radius of each circle ?

Think and Write

- Complete the three arcs to form a trilobed arch.



Mosque–Cathedral of Córdoba Spain

- Observe the central arch of the Almoravid Dome, **Qubba al-Barudiyyin**. What do you notice ?

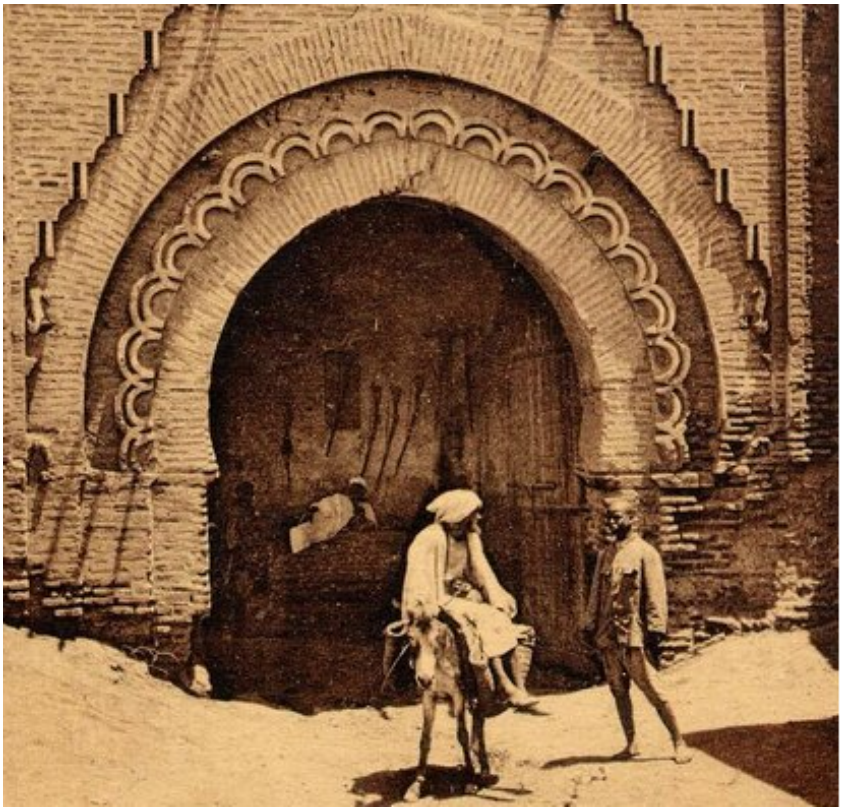
- Can you count how many lobes are in the central arch of this dome ?

Think and Write

Mâallem Bassou

The Qubba al-Barudiyyins is like the last slice of cake in the fridge : **rare**, **precious**, and oh so delightful ! The remnants of the Almoravids have survived it all. **The ancients used to say :** "*Let this remind you how great we were !*" So, hats off to these builders, because honestly, keeping a dome standing for so long is more impressive than any Harry Potter spell.

- Examine Bab Ddebagh. What details do you notice ?



- How many lobes can you count in Bab Ddebagh's arch ?

Think and Write

- What additional technique has been applied to the lobes in Bab Ddebagh's arch ?

Think and Write

Mâallem Bassou

Ah, **Bab Ddebagh** reveals an innovation in the art of polylobed arches ! Here, the artisans added a unique touch by **overlapping pairs of lobes** to create an even more captivating visual effect.

4. Bab Agnaou and Calligraphy بَاب أَگْنَاوْ

- Take a close look at Bab Agnaou. What details catch your eye ?

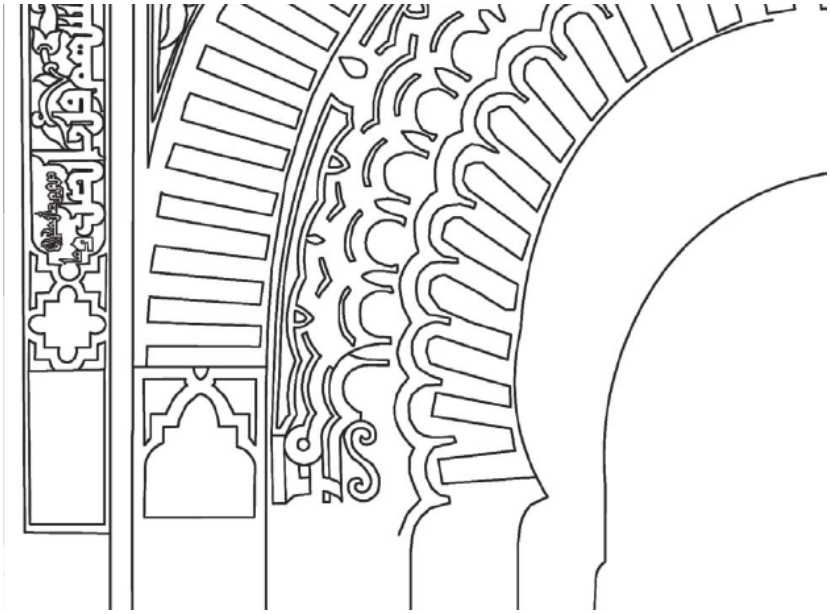
Mâallem Bassou

Here is a gate I erected in honor of my lord, the illustrious Almohad Emir **Abû Ya'qûb**, the Great Builder.

On the façade of Bab Agnaou, the engraved inscription showcases a **frieze in Kufic Arabic script**, measuring **65 cm wide**, running along the three bands framing the arch of the gate.

Each band is beautifully bordered by **interlaced arch motifs**, the **Arches and Steps** كثف و ذرج, marking the beginning and end of the frieze. And get this—some words are adorned with floral designs, because even back then, we knew how to serve a little extra flair.

- Add color to the polylobed arches and the beautiful floral motifs !



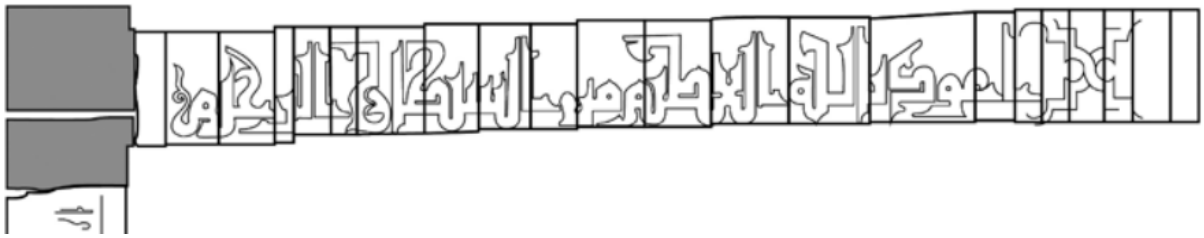
Mâallem Bassou

Bab Agnaou, just its name commands respect ! It comes from the word "**Gnaoua**," in homage to the Gnaoua people. But let's be honest, this gate isn't just a passage—it's an architectural fashion show ! With its floral motifs, **interlaced arches**, and **polylobed arches**, it would make any modern architect blush.

The polylobed arch, meanwhile, has a history worthy of a globetrotter. Born in Cordoba, it has traveled through the centuries and even influenced Romanesque builders in northern Spain. It's the "Marco Polo or ben Battuta of arches !" You can find it in iconic places like **the Abbey of Notre-Dame-de-l'Assomption in Châtre** or **Saint-Michel d'Aiguilhe Church**, France.

These arches are more than just beautiful ; they tell a story—a story of cultural exchanges between civilizations. Honestly, who would have thought a simple arch could travel more than you and me combined ?

- Bring the Arabic calligraphy to life by coloring it carefully.



Mâallem Bassou

Did you know, young artisan, that one of the most renowned translations of the Quran, *The Koran Interpreted*, was crafted by the orientalist **Arthur John Arberry** ? Born in 1905, this scholar not only captured the beauty of the Quran's language but also translated Chapter XV, "**Hegr**," from which the intricate calligraphy on this gate is drawn.

Now, brace yourself ! I'm about to unveil the meaning behind the inscriptions you'll be **tracing** with the precision and artistry of a true **maâllem calligrapher** !"

- I seek refuge in God from the accursed Satan.
- In the Name of God, the Merciful, the Compassionate.
- May God bless Muhammad..
- Enter it in peace, secure.
- We will remove all malice from their hearts.
- We shall strip away all rancour that is in their breasts ; as brethren, upon couches set face to face.
- No fatigue shall touch them there,
- nor shall they ever be expelled from it.

- Take your time and trace each letter carefully, as a true maâllem calligrapher would. The goal is to respect the elegance and harmony of the text !"

أعوذ بالله العظيم من الشيطان الرجيم

بسم الله الرحمن الرحيم

صل الله على محمد.

ادخلوها بسلام آمنين

ونزعنا ما في صدورهم من غل إخوانا

على سر متقابلين لا يمسهم فيها نصب

وما هم منها بمخرجين

The Souks of Marrakech : Treasures of the World

1. Handicrafts, Souks, and Cuisine

A Glimpse into Moroccan Culture

The souks of Marrakesh, organized by craft, form one of the largest traditional markets in Morocco. There are about 18 souks in Marrakech ! Each souk is named after the craft it houses, such as :

- **Souk Zrabi :** Carpet Market سوق الزرَابي
- **Souk Fekharine :** Pottery Market سوق الفخَّارين
- **Souk Haddadine :** Blacksmith Market سوق الحدَّادين
- **Souk Jeld :** Leather Market سوق الجلد
- **Souk Nejjarine :** Carpentry Market سوق النجَّارين
- **Souk Laghzal :** Wool Market سوق الغْزل
- **Souk Quessabine :** Bamboo Market سوق القصَّابين

- Observe the Medina of Marrakesh and check out the map on the next page.

Rbati Guide

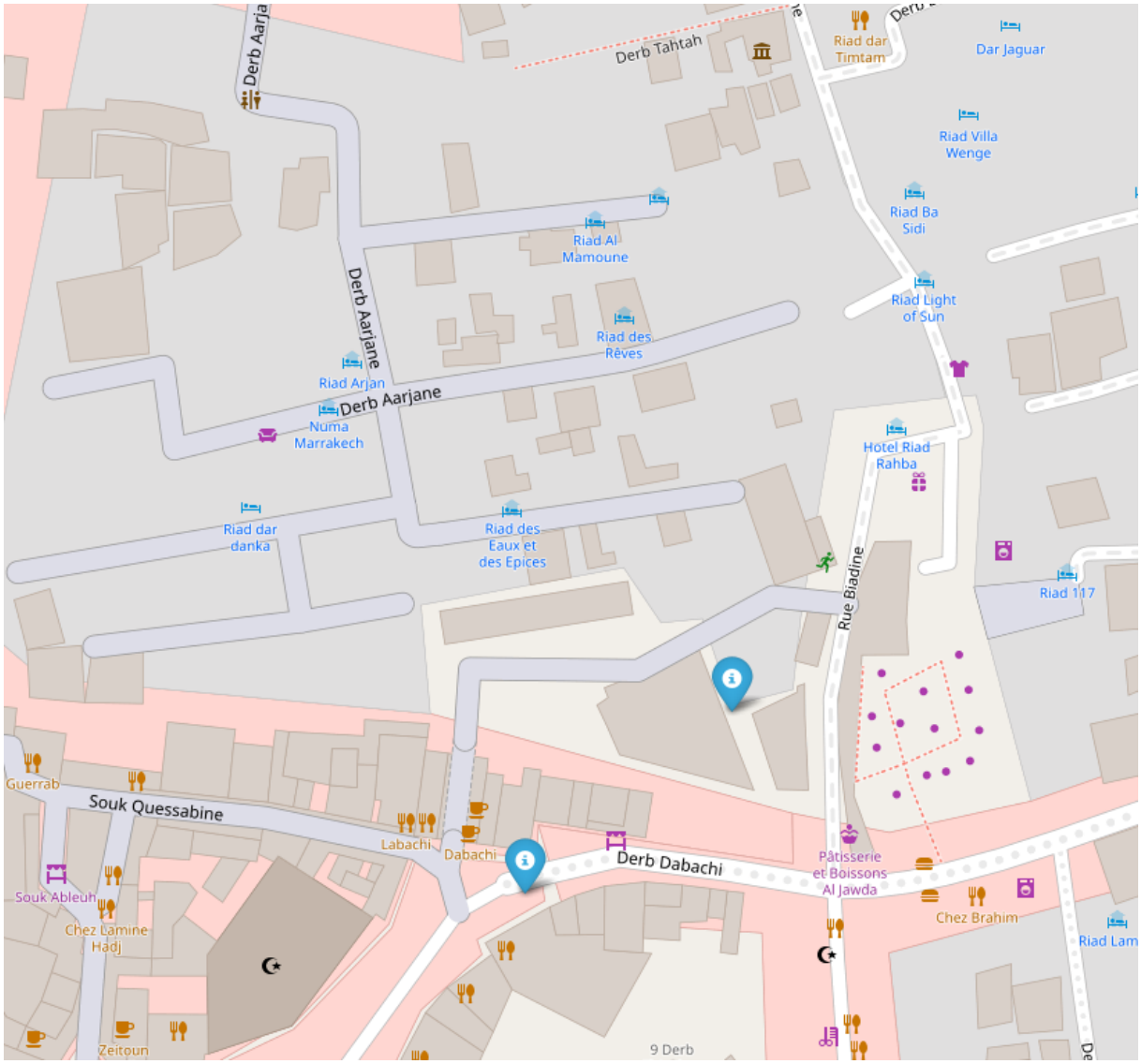
I'm **Rbati**, your Moroccan guide, celebrated for my "legendary" precision ! Don't believe the fake news about Rbatis being bad with directions—I guarantee a straight route... okay, maybe one tiny detour, just to keep things exciting. Stick with me, and I promise you'll find your way back... eventually. Worst case ? We start a new life selling spices together ! Let's hit the road !

From the famous **Jemaa el-Fna square**, walk past Café de France and head toward **Derb Dabachi** درب ضبَاشي.

Continue straight on Derb Dabachi, then turn left onto **Rue Biadine**, which intersects the main street. At the heart of Rue Biadine, don't miss visiting **Dar Timtam** دَار الثّمثَام, an iconic house adorned with geometric patterns that tell a long and fascinating story.

Fun fact : The author of this book was born on this very street !

- Have fun marking each step on the map and imagine your stroll to Dar Timtam !



- What souks can you discover on this map ?

Think and Write

- What is the name of the street directly across from Dar Timtam ? (Hint : **Derb** means **street** in Moroccan Darija.)

Think and Write

Rbati Guide

Souk Ablouh سوق أَبلوح, nicknamed "The Paradise of Olives and Pickles," is like walking into an edible art gallery. Vendors stack olives into pyramids so precise they could win gold in the Snack Olympics. Green, purple, black—each one struts like a model on the runway. But don't linger too long ; they'll charm you into buying the whole pyramid !

The **Picholine marocaine**, Morocco's national olive variety, comes in two types : **Ménara** and **Houzia**. Chat with an olive vendor, and you'll get to taste three types of olives : **green**, **purple**, and **black**.

The preparations are just as delicious and varied :

- **Mchermel :** Marinated with spices and herbs.
- **Mchkouk :** Scored olives that better absorb flavors.
- **Mdagoug :** A delightful olive tapenade.

So, ready to savor this explosion of flavors ?

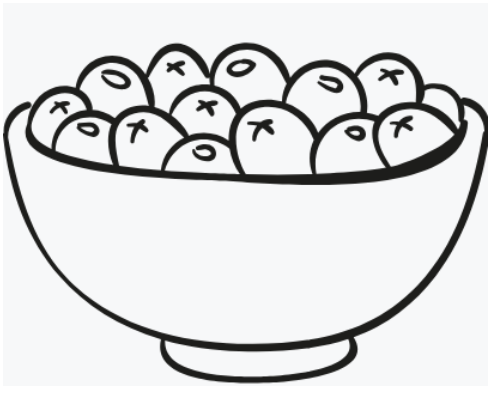
- Name two types of local olive varieties :

Think and Write

- What kind of olive preparation do you prefer ?

Think and Write

- Color the olive type you like best :



A Glimpse into Moroccan Culture

Moroccan cuisine is a rich tapestry of cultural influences, blending Amazigh, African, Arab, Andalusian, Spanish, and Mediterranean traditions. Each dish tells a story of the region's history and the diversity of its people.

Bissara, a traditional Moroccan dish, exemplifies this culinary heritage. Made from simple ingredients like fava beans or split peas, it is a wholesome and flavorful meal often enjoyed as a comforting lunch or dinner. Accompanied by freshly baked bread, Bissara embodies the essence of Moroccan home-cooked meals : nourishing, economical, and deeply rooted in cultural identity.

- Moroccans say **Bissara** is "the warmth of home in a bowl." So, prepare it with love and share it with your loved ones :

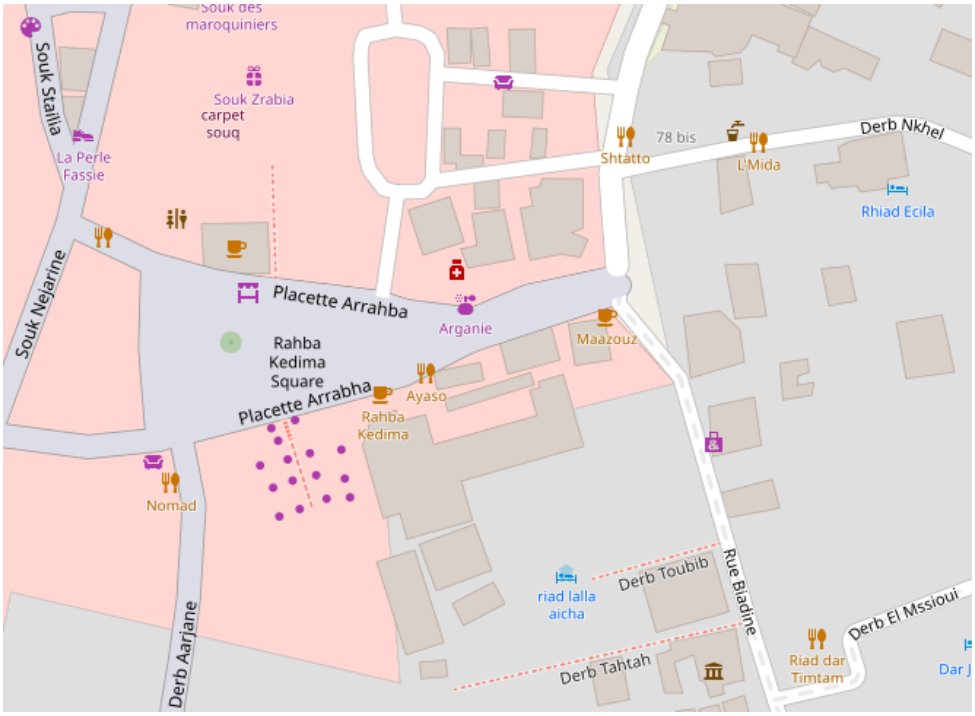
Guidelines :

- **Ingredients needed :**
  - 250 g dried fava beans or split peas.
  - 1 liter of water.
  - 2 to 3 cloves of garlic.
  - 1 tablespoon of olive oil.
  - 1 teaspoon of salt.
  - 1 teaspoon of cumin.
  - A pinch of sweet or hot paprika (to taste).
  - A drizzle of olive oil for garnish.
- **Preparation steps :**
  1. **Prepare the beans or peas :** Soak dried beans in water for at least 12 hours to soften them. If using split peas, soaking is unnecessary.
  2. **Cooking :** Place the beans or peas in a pot with water, peeled garlic, and salt. Simmer for about 45 minutes to 1 hour, stirring occasionally.
  3. **Blend the soup :** Blend the mixture until smooth and creamy. Add a little water if needed to adjust the consistency.
  4. **Add the spices :** Stir in the cumin and sweet or hot paprika. Mix well.
  5. **Serve hot :** Pour into a bowl, drizzle with olive oil, and lightly sprinkle with cumin before serving.

- Imagine a steaming bowl of Bissara surrounded by olives and Moroccan bread. Color this cozy scene with your favorite colors :

Rbati Guide

Continue your walk to the end of Rue Biadines. Once there, turn left to discover the charming **Rahba Kedima Square** الرحبة القديمة, also known as **Kaat Benahid**.



- What souks can you identify on this map ?

Think and Write

Rbati Guide

Welcome to the unique and vibrant atmosphere of Moroccan souks, where bright colors, captivating aromas, and authentic flavors blend to awaken your senses !

Rahba Kedima is one of the most iconic markets, bursting with life and colors. Here, pyramids of goods catch your eye :
- Mounds of yellow powder (like **turmeric** or **saffron**), **red** (paprika or **ground chili**), and **beige** (cumin or **ginger**).

- Brightly colored pigments, dried **pink rose petals**, or fresh **green** herbs.

Remember, each stall tells a story of tradition and passion passed down through generations. Observe closely and let yourself be amazed !

- Can you recall the names of the spices seen in the souks ?

Think and Write

- Color the three mounds representing **turmeric**, **paprika**, and **ginger** with their characteristic colors.

Rbati Guide

Continue your walk through **Souk Nejjarine**. If you're feeling hungry, stop for a bowl of Bissara on **Rue Talaa**, just before the famous **Ben Youssef Madrasa**. While you're there, explore nearby wonders like the **Ben Youssef Madrasa** itself or the **Marrakech Museum**. *Fun fact : The author of this book spent their first grade year in this museum !*

On your way back, stroll through **Souk Qatarine** and **Souk Attarine**, then detour to the popular **Souk Semmarine**, famous for its textiles and pastries. End your walk at the charming **Souk Ablouh**, known for its **preserved lemons**, **olives**, and **olive** and **argan oils**.

- Looking at the map, which route would you choose for your walk ? Would you prefer to pass through the Ben Youssef Madrasa or head straight to explore the Qatarine and Attarine souks ?

2. Souk Zrabi : Computing and Weaving تَدرَّازت

Mâallem Bassou

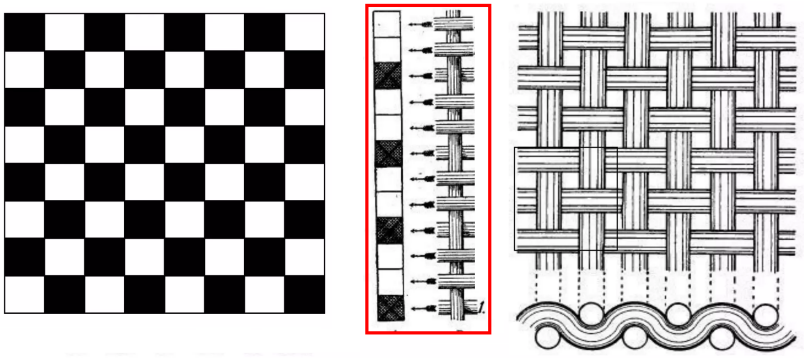
In Souk Zrabi, artisans don't just make carpets—they tell stories that could rival Netflix dramas. They welcome every kid like, "Step right up, young apprentice ! Let me blow your mind with this : a carpet isn't just an object. Oh no, my friend, it's a tale we weave, a journey we craft.

Every pattern ? A hidden secret. Every line ? A map to some magical destination. And to create these masterpieces, we don't just wing it—we follow **a special rule**, like some kind of **mysterious algorithm**. Yeah, even carpets are smarter than your smartphone !"

This algorithm, this method, helps us color the squares and create unique designs. Are you ready to become a true master artisan and reveal the secrets of magnificent carpets ?

The Interweaving Threads : The Magic Rule

The artisans explain their working method :



- Each square of a carpet represents an interlacing of two threads : one white, one black.
- Each square has a **fixed value** (read from right to left, as written in Morocco) :

8, 4, 2, 1

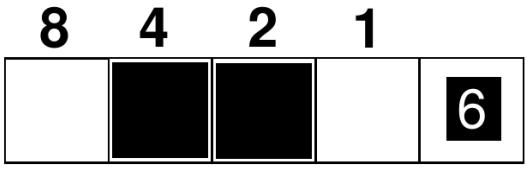
- To the right of each row is a "magic number." The weaver's task is :
  1. Determine which squares add up to that number.
  2. Color those squares to complete the pattern.

Example : Discovering a Line Using the Number 6

Mâallem Bassou

Here's an example : For this pattern, the magic number is **6**. Which squares should you color to get **6** ?

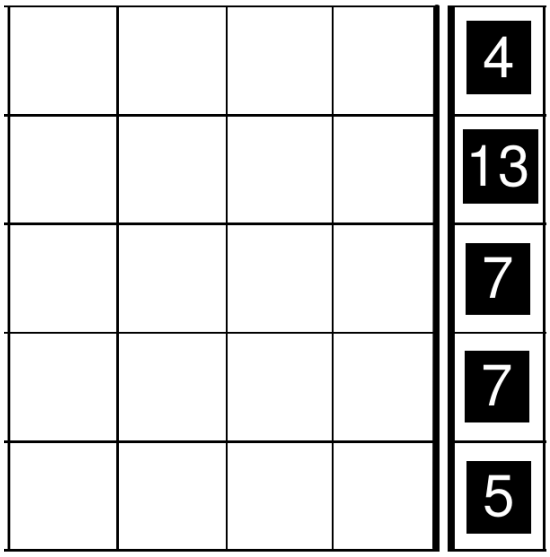
- The value of the squares is : **1, 2, 4, 8**
- To achieve **6**, you add :
  - **4 (3rd square)** and **2 (2nd square)**.
- Here's your final pattern :



The Sloughi Pattern

Mâallem Bassou

"Now, I entrust you with this mission : practice the craft of weaving using the pattern called the ****Sloughi****. The magic numbers are : **4, 13, 7, 7, 5**. Ready ? Let's get started !"

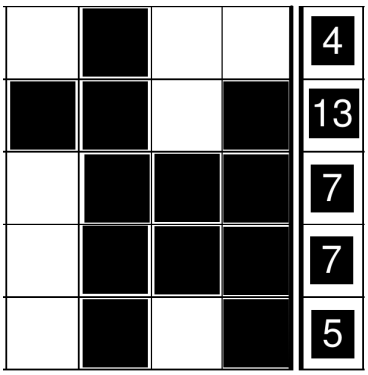


- After coloring the squares, what do you notice ? What animal appears in the pattern ?

Think and Write

- **Steps for the Pattern :**
  - **First Row : Magic Number 4**
    - Color the 3rd square (value 4).
  - **Second Row : Magic Number 13**
    - Color the 4th square (value 8), the 3rd one (value 4), and the 1st one (value 1).
  - **Third and Fourth Rows : Magic Number 7**
    - Color the 3rd square (value 4), the 2nd one (value 2), and the 1st one (value 1).
  - **Fifth Row : Magic Number 5**
    - Color the 3rd square (value 4) and the 1st square (value 1).

  The final result is the beautiful **Sloughi** pattern :



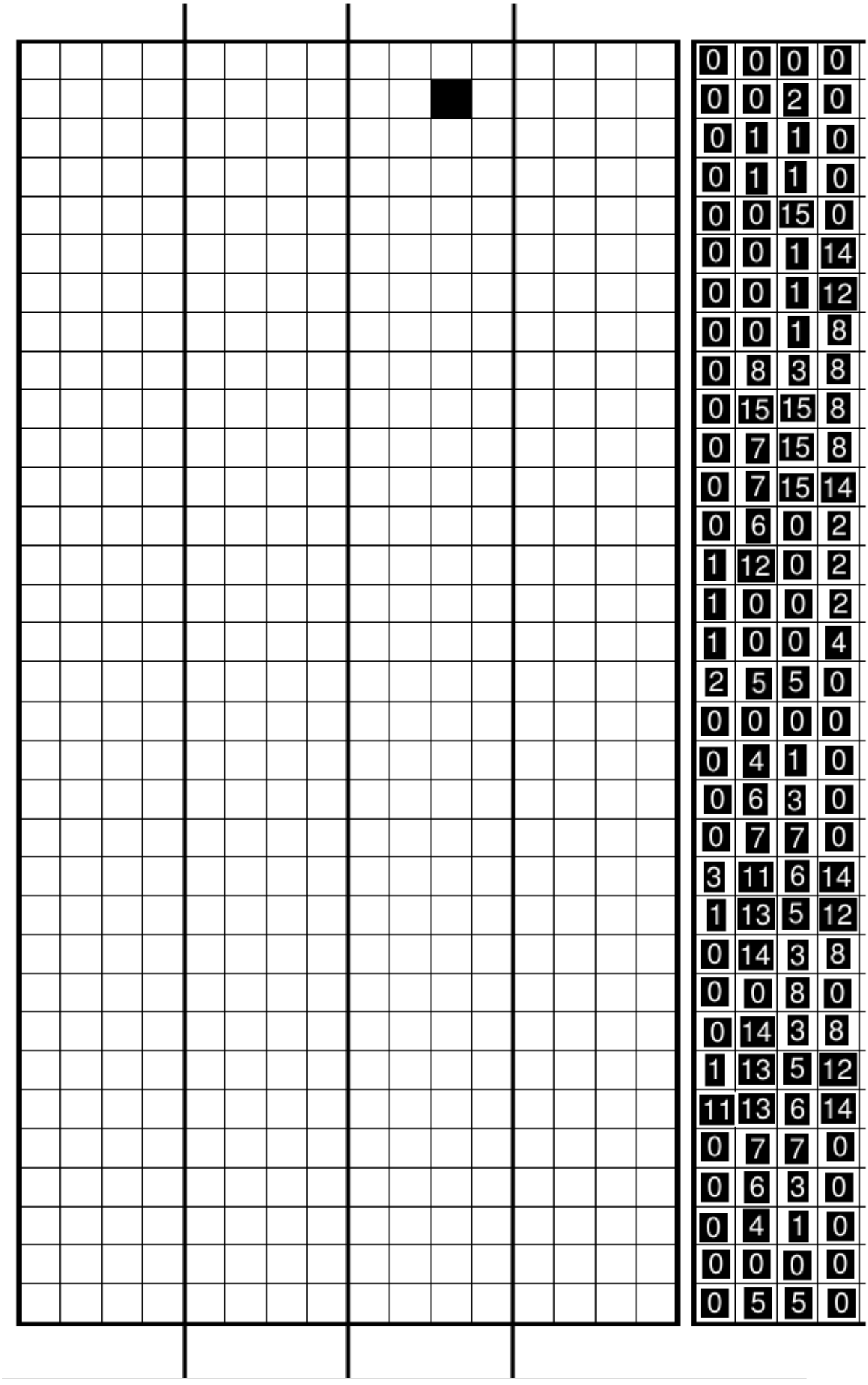
The Moroccan Sultan's Carpet

Mâallem Bassou

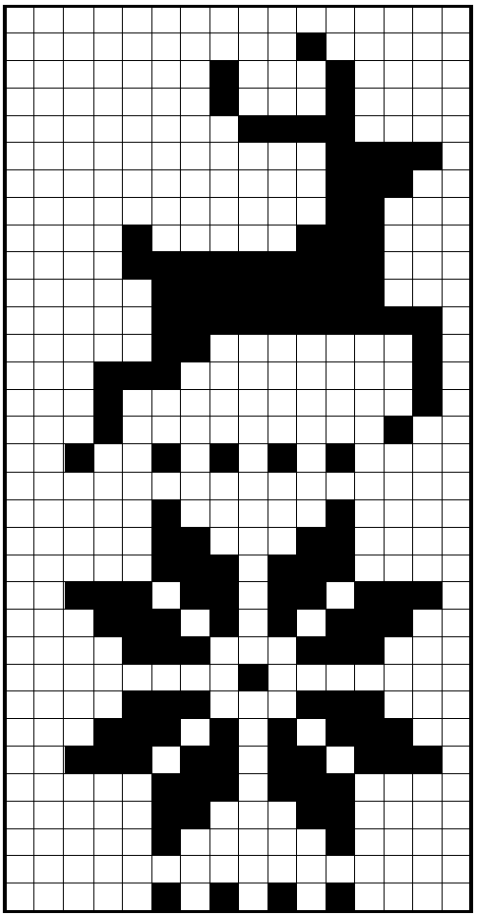
Once upon a time, a young artisan named El Ouazzani wanted to weave **the most beautiful carpet** for the Sultan of Morocco. For the first row, a star whispered the number "2" to him. El Ouazzani recalled the fixed value rule :

- "A small shining star equals **1**, a medium star equals **2**, a large star equals **4**, and a gigantic star equals **8**."

With care, El Ouazzani colored the squares corresponding to the number 2. As he completed each row, the carpet revealed a legendary pattern.
Follow the **Mâallem's algorithm** to complete the Sultan's legendary carpet. The final design represents **the gazelle with the ring of Solomon**.


0 0 0 0
0 0 2 0
0 1 1 0
0 1 1 0
0 0 15 0
0 0 1 14
0 0 1 12
0 0 1 8
0 8 3 8
0 15 15 8
0 7 15 8
0 7 15 14
0 6 0 2
1 12 0 2
1 0 0 2
1 0 0 4
2 5 5 0
0 0 0 0
0 4 1 0
0 6 3 0
0 7 7 0
3 11 6 14
1 13 5 12
0 14 3 8
0 0 8 0
0 14 3 8
1 13 5 12
11 13 6 14
0 7 7 0
0 6 3 0
0 4 1 0
0 0 0 0
0 5 5 0

The final result represents **the gazelle with the signet ring of Solomon**.



A Glimpse into Moroccan Culture

The Gazelle : The gazelle is more than an animal : it's **the embodiment of grace**. With its elegant gait and swift movements, it always escapes hunters. For Moroccan poets, it symbolizes **unparalleled beauty**, like the stars in the sky.

The Ring of Solomon : Legend says that **King Solomon** wore an **octagonal ring** engraved with mysterious patterns. It symbolized **harmony and wisdom** and served as a royal seal for documents. What secrets would this ring reveal to you ?

The Sloughi : Imagine an agile dog, swift as the desert winds. The **Sloughi** is the loyal companion of Moroccan nomads, guarding tents and hunting with **impressive agility**. Its gentle eyes and majestic silhouette have made it a legendary guardian of Morocco's vast desert plains. Will you walk beside it and uncover its secrets ?

3. The Art of Bargaining

Negotiation, or **the art of Bargaining**, is a cornerstone of life in the souks. It's not just a way to settle on a price but a Moroccan tradition reflecting respect, sharing, and humor.

Mâallem Bassou

Mâallem Bassou's Tip :
Remember, young **souk wanderer**, the key to success is smiling and taking your time. Before you buy, first tour the souk, negotiate for the items you're interested in with the intention to buy, **but without actually buying** !

The steps to a successful negotiation :

- **Greet respectfully :** Start with a friendly greeting like *Labess* لَا بَاس (How are you ?).
- **Ask the price :** Ask with curiosity and kindness : *BshHal ?* بشحَال (How much does it cost ?).
- **Make an initial offer :** Respond with a lower price than what the vendor proposes. Say : *Ghali Bzzaf !* غَالي برَّاف. (It's too expensive !).
- **Negotiate patiently :** Keep smiling and maintain a positive attitude. Say : *Sawb li chi tamane Mezyane.* صَاوب شي ثَمَن مزيَان. (Give me a good price.).
- **Seal the deal :** When both parties are satisfied, a handshake or a *Wakha* وَاخَّا (Okay) seals the agreement.

The Golden Rule : Always negotiate starting from **two-thirds** of the price. Follow the steps below to practice the art of negotiation !

1. Choose your item : Circle or color the item you want to buy :

2. Set the prices : The vendor gives you a price. Now it's your turn to negotiate ! Use your imagination and fill in the blanks.

Set the Prices !

Initial price proposed by the vendor : 900 dirhams
Your first offer : _____ dirhams
Vendor : Give me 800 dirhams, and the item is yours.
Your second offer : _____ dirhams
Vendor : Because you seem like a good person, 700 dirhams is a fair price.
Your third offer : _____ dirhams
Vendor : 650 dirhams is my last price ; otherwise, I'm losing money.
Your fourth offer : _____ dirhams
Vendor : *Wakha* (Okay) for 625 dirhams or no deal.
Your fifth offer : _____ dirhams
The vendor agrees : two-thirds of the price, which is 600 dirhams, or refuses to sell altogether.

3. Reflection : Did you negotiate well ? Answer the following questions :

1. Are you happy with the final price ? Why ?

Think and Write

2. What did you learn about negotiation through this activity ?

Think and Write

A Glimpse into Moroccan Culture

In Marrakech, **politeness** and **humor** rule the souks. Offering tea is a warm ritual ; sometimes, a small gift accompanies this hospitality, where giving with the heart is above all. The souks are more than markets : they are **living spaces**, and among 10,000 pairs of **Belghas** (traditional Moroccan slippers), every artisan, with humor and passion, will tell you theirs are **unique**.

Negotiation is an art : an exchange marked by patience and respect, where everyone finds their place and their fair share.

Zellij, the Quintessential Moroccan Art

Mâallem Bassou

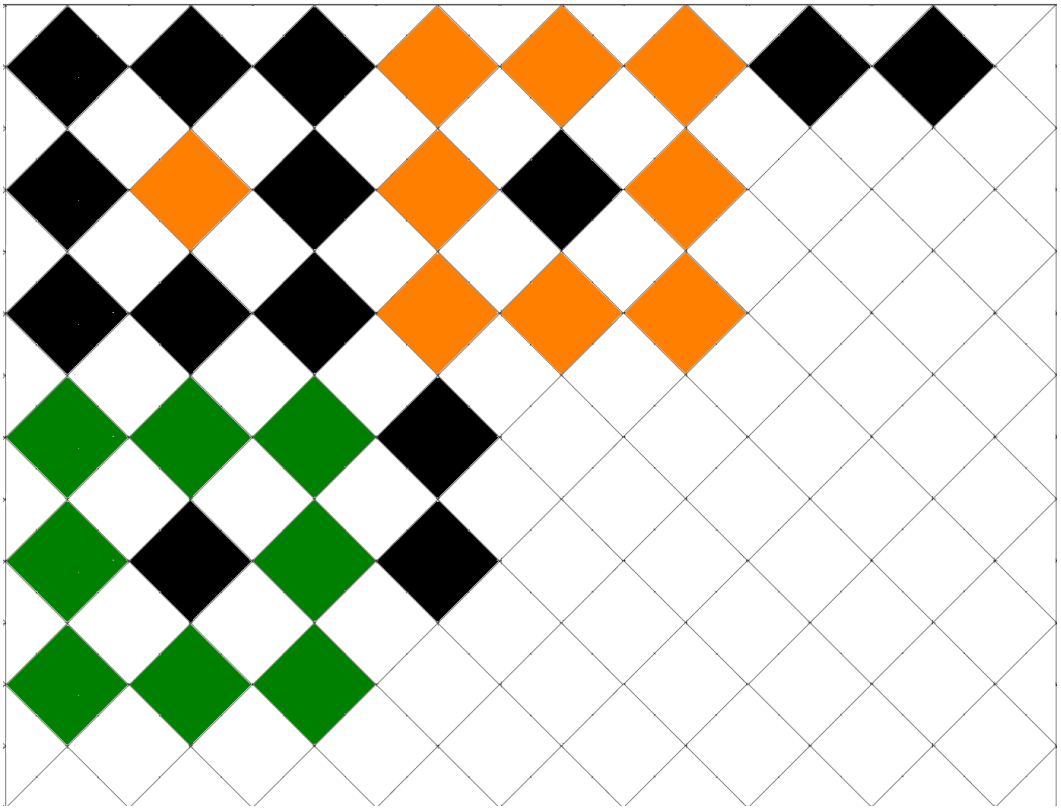
The El Bahia Palace, built long after the Almohad era, in the late 19th century by the grand vizier **Sidi Moussa** and later expanded by **Ahmed ben Moussa** (Ba Ahmad), represents the pinnacle of Moroccan craftsmanship. Although I, Ben Bassou, never witnessed these innovations, I would have admired the creativity and refinement of the artisans who brought this masterpiece to life.

The mosaics of El Bahia Palace tell a story where every square and diamond holds its own meaning. **The squares**, delicately rotated by 90°, form fascinating patterns, while **the diamonds**, derived from **equilateral triangles**, come together to create harmonious shapes. These simple elements transform into true masterpieces, proving that Moroccan Zellij evolves with time while preserving its essence.

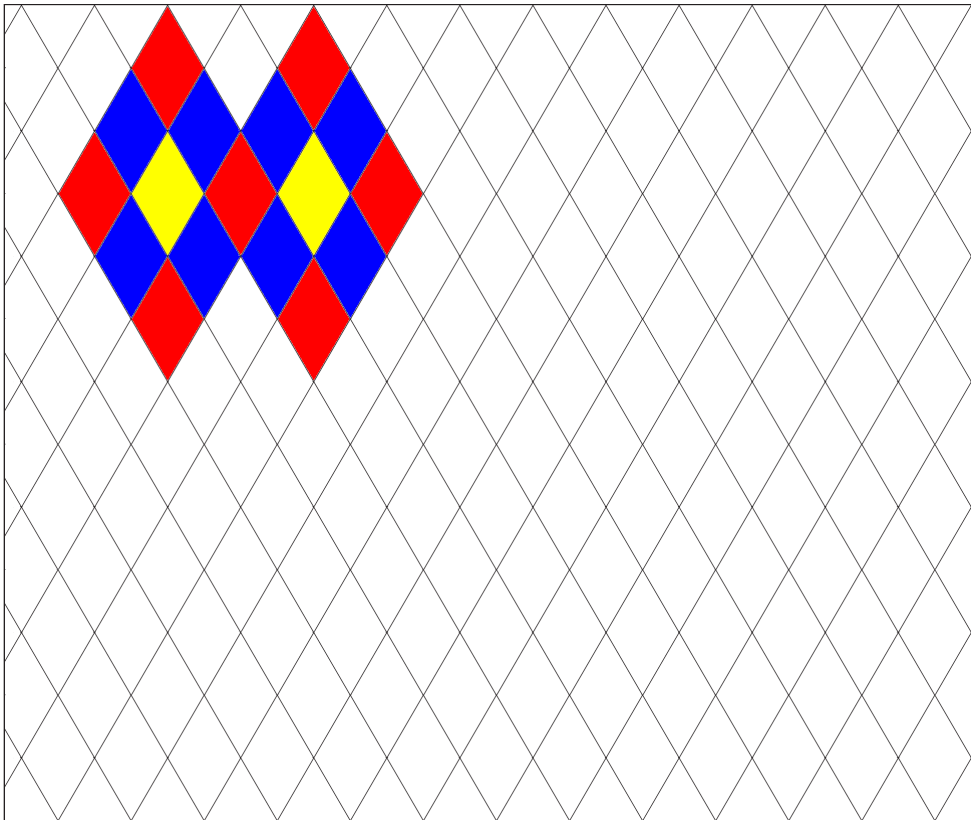
1. Basic Shapes

Activity : Complete these mosaics by following the color patterns :

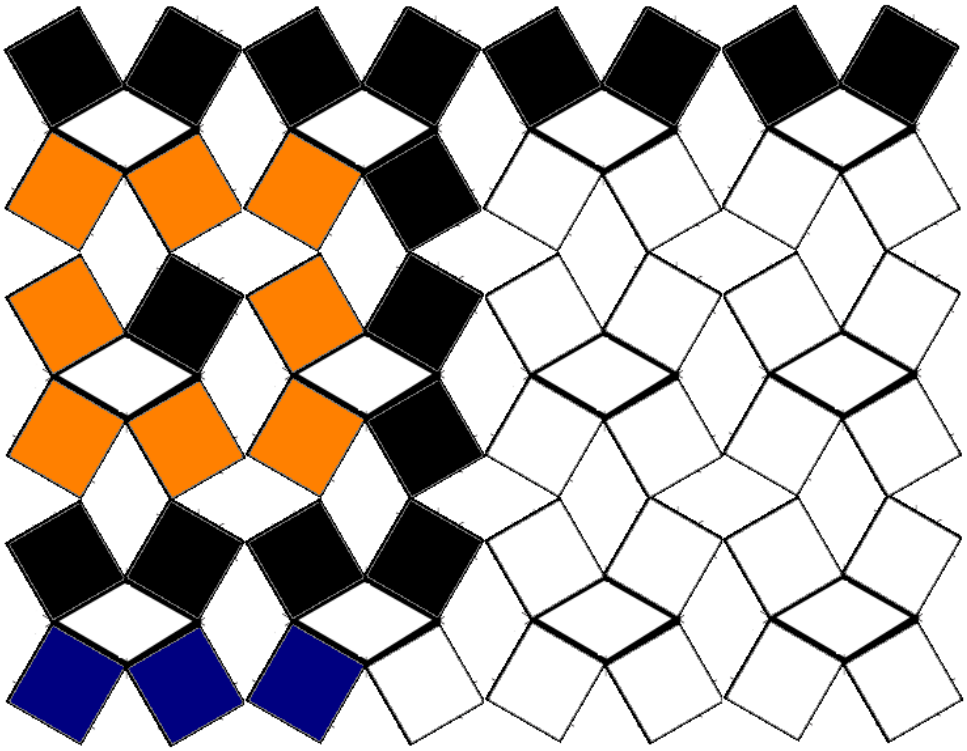
1. Squares rotated 90° :



2. Diamonds created from triangles :



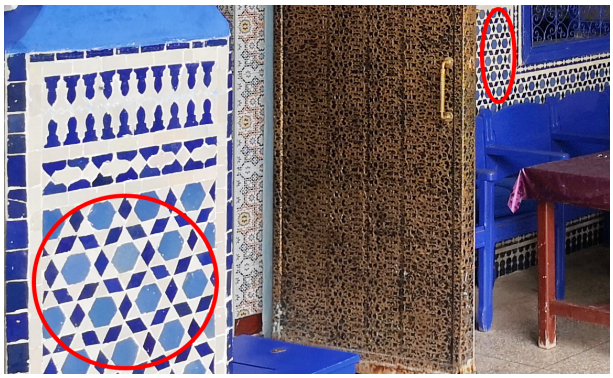
3. The square-diamond assembly for a stunning final masterpiece :



2. Simplicity and Complexity

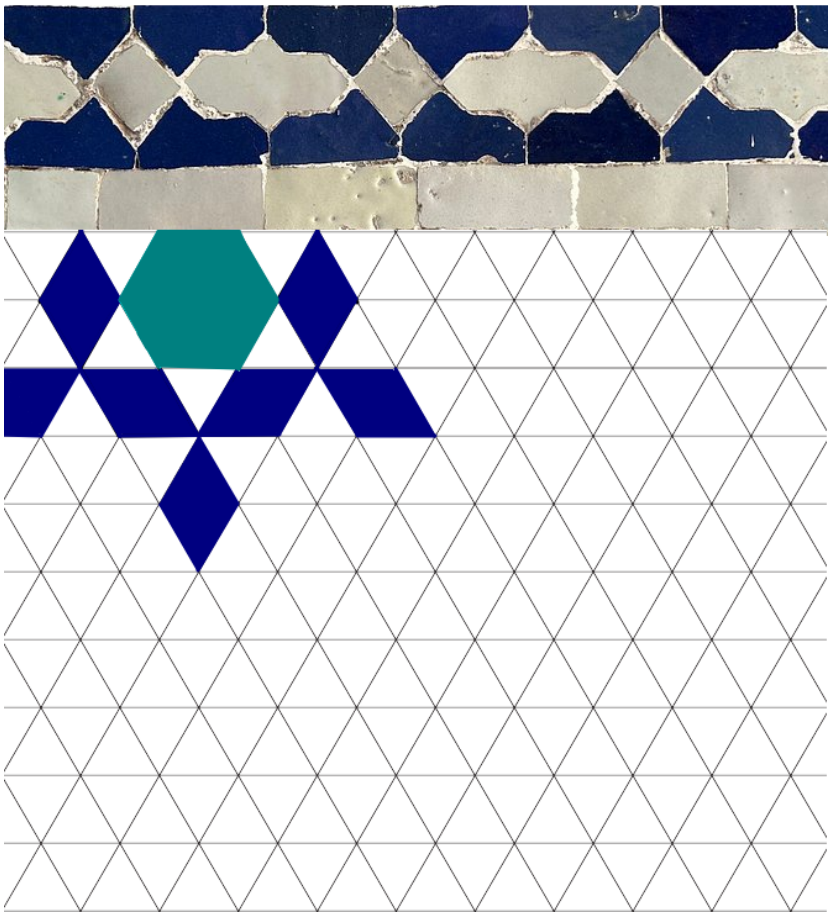
Mâallem Bassou

The Lazama Synagogue in Marrakech, founded in 1492 by Jews expelled from Granada and Andalusia, is a place filled with history and memory. Visiting this unique site, you'll admire the intricate **Zellij** patterns, which always originate from simple shapes : **squares**, **triangles**, and **diamonds**.

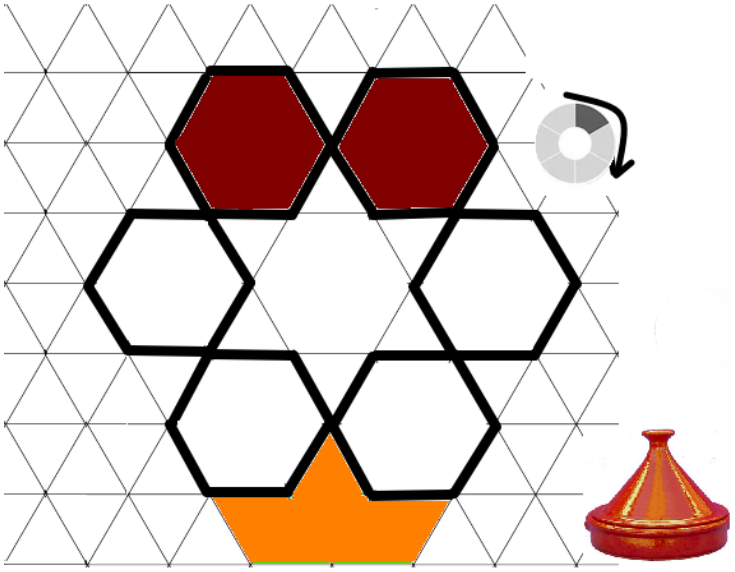


Activity : Assemble triangles to create diamonds and hexagons. Then combine hexagons and diamonds to reveal a surprising shape called **Tajine**.

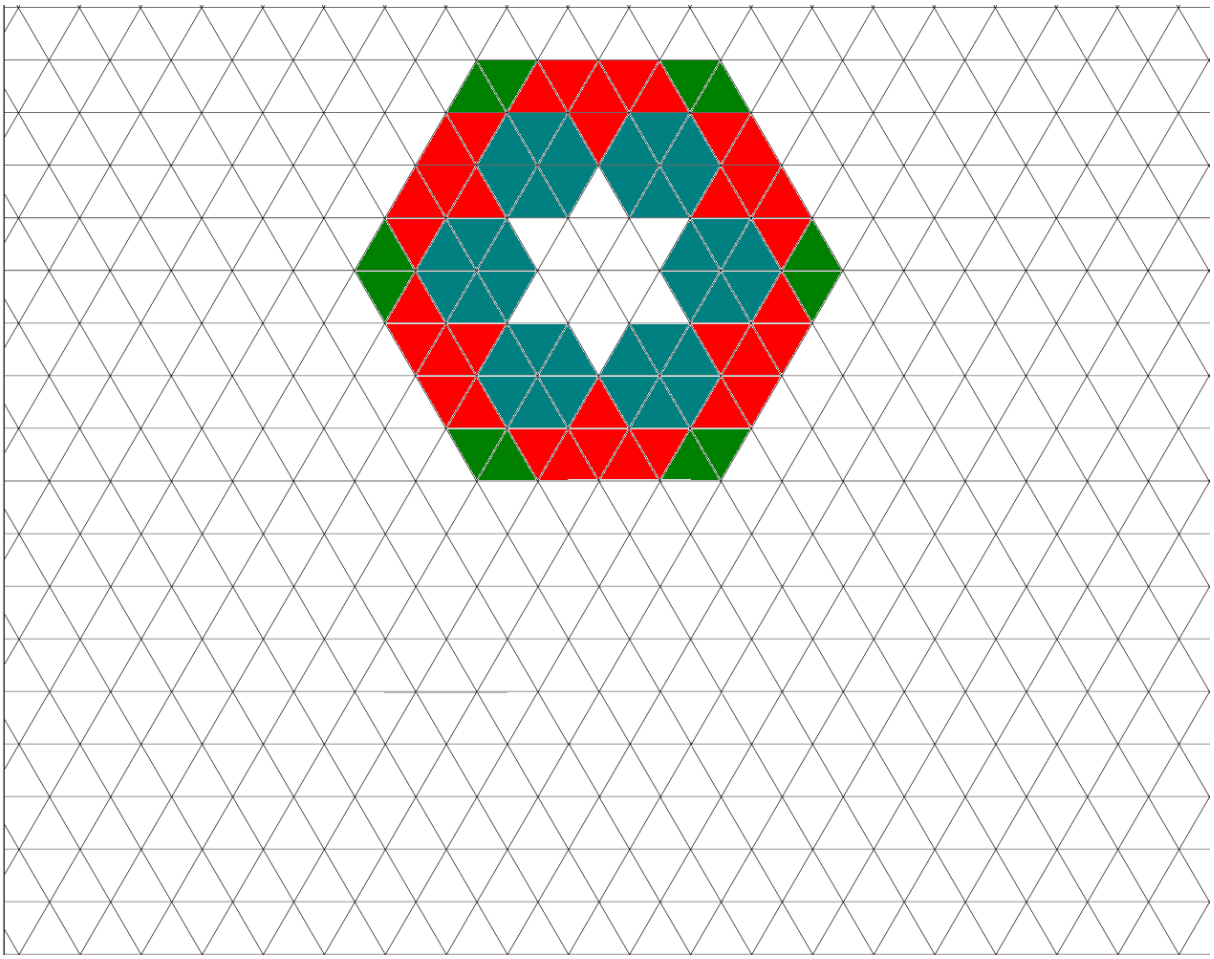
1. Color the diamonds and hexagons.



2. Explore the patterns of the Qubba al-Barudiyyin and identify the "tajines" and diamonds hidden within their arrangement :



3. Assemble small hexagons, tajines, and diamonds to create a LARGE hexagon and a six-pointed star.



3. The Windmills النَّاعورَات

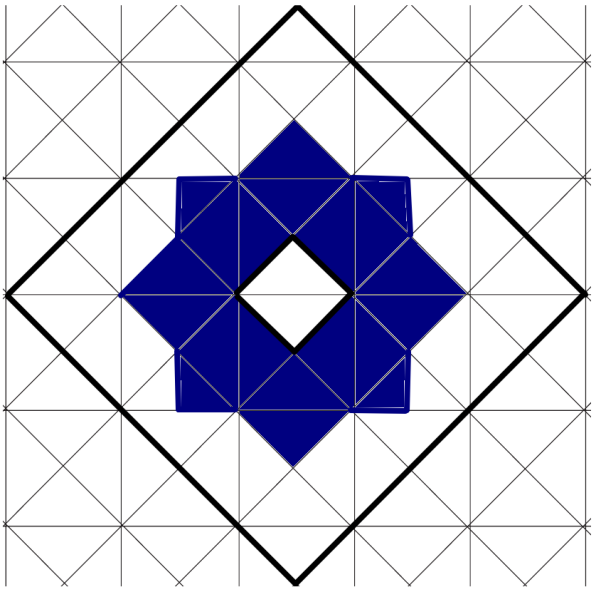
Mâallem Bassou

In the captivating world of Zellij, one of the most remarkable patterns is the **eight-pointed star**, also called the Seal of Solomon الخَاتم السْليمَاني or Octogram. By combining the eight-pointed star with other geometric shapes, artisans create motifs known as **Windmills** النَّاعورَات.

Starting from simple **squares**, learn to shape this geometric masterpiece and discover the fascinating forms it reveals : bats, Solomon's ring, scissors, turtles, and many other treasures !

Activity : Are you ready to become a **Jlayji** artisan and let your imagination guide your patterns ?

1. Observe the mosaic :



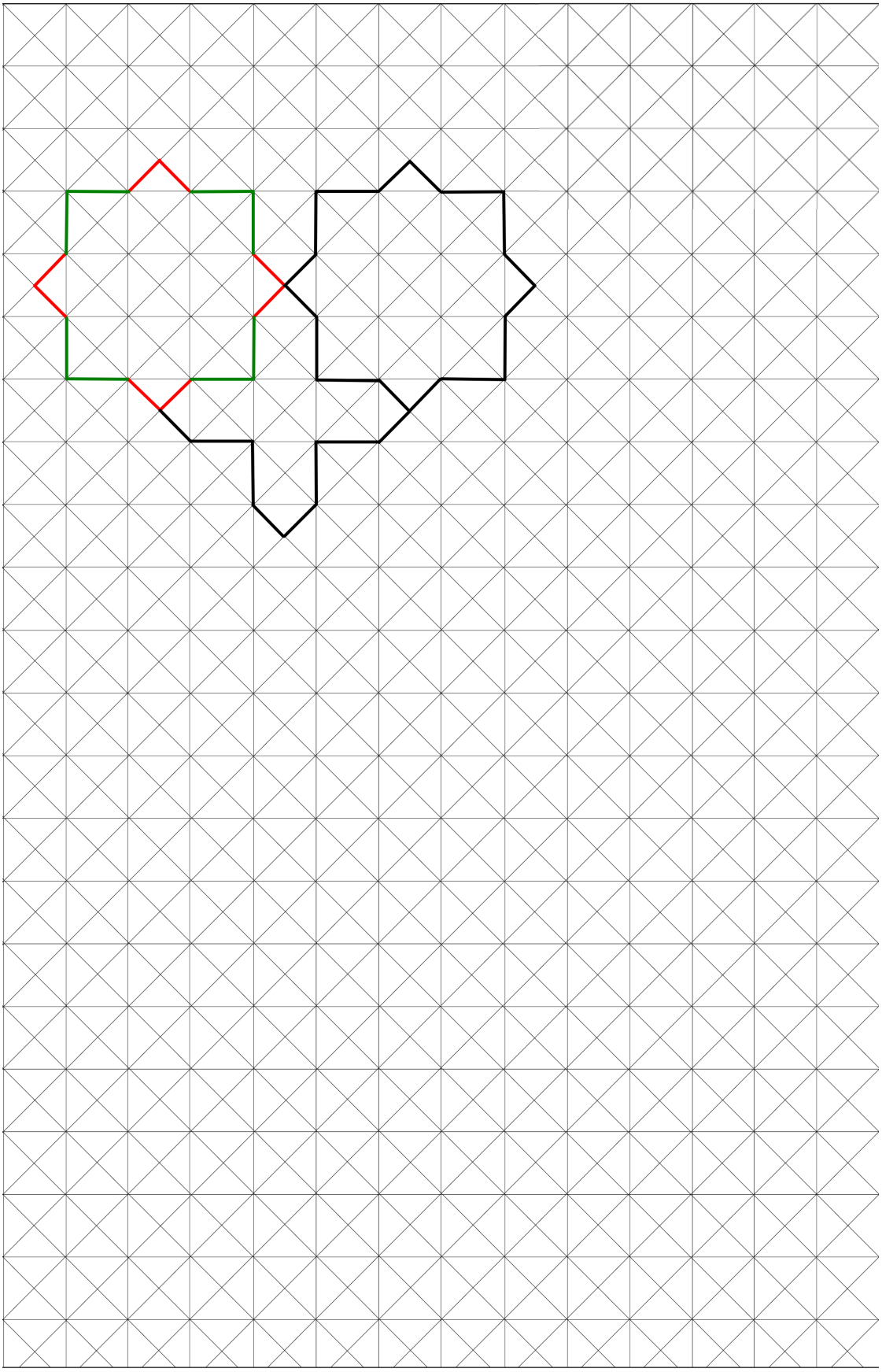
- Count the number of blue squares and note your findings :

Think and Write

- Count the number of white squares :

Think and Write

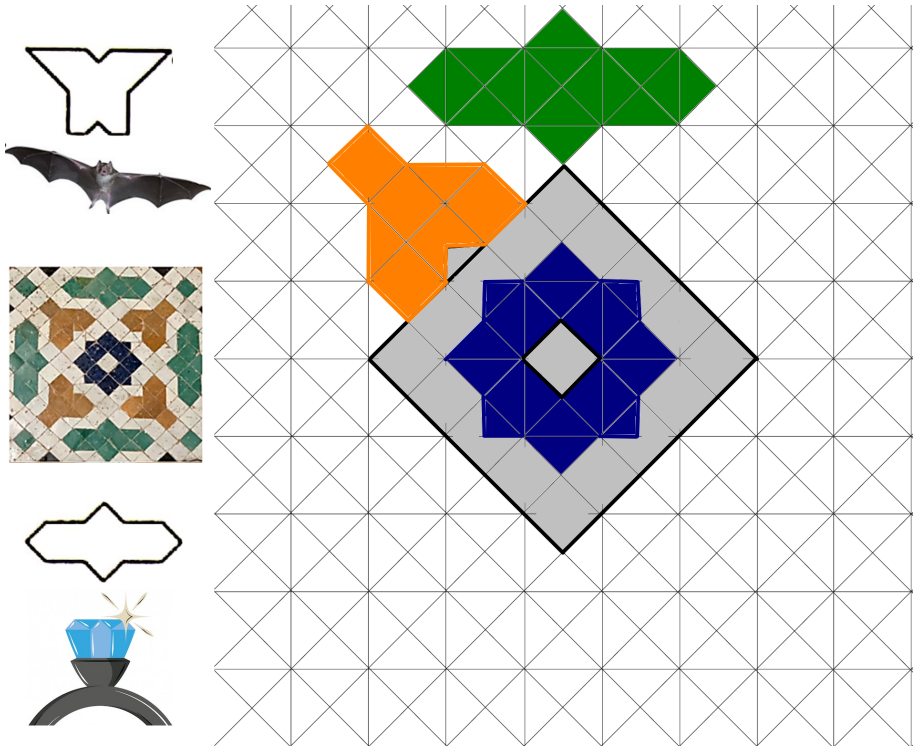
2. Construct the eight-pointed star (Octogram) using the lines :



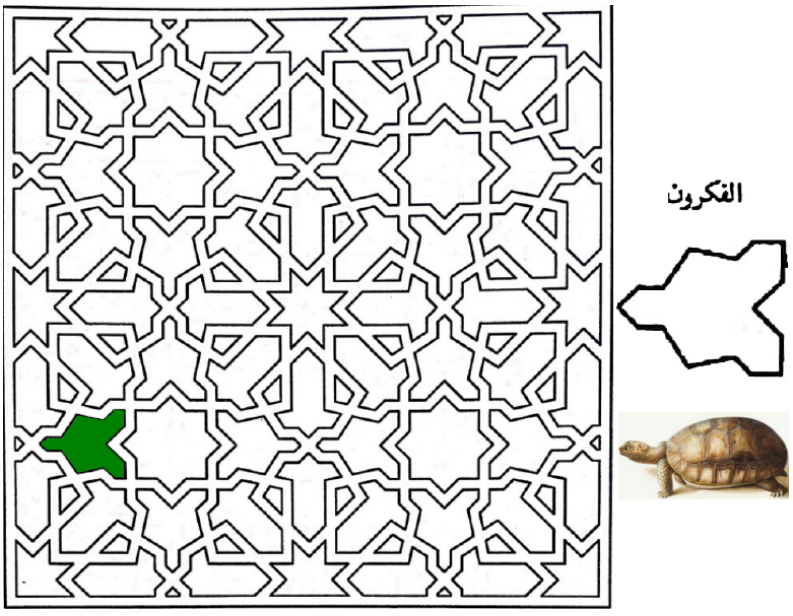
Mâallem Bassou

By exploring the eight-pointed star, you've revealed a secret shape called **the knot** (*Aqda* العْقدَة in Darija). There are many other forms, each inspired by artisans' imagination or everyday objects. *Are you ready to discover more ?*

3. Discover and color the bat shape and Solomon's ring :



4. Color the turtle shape :



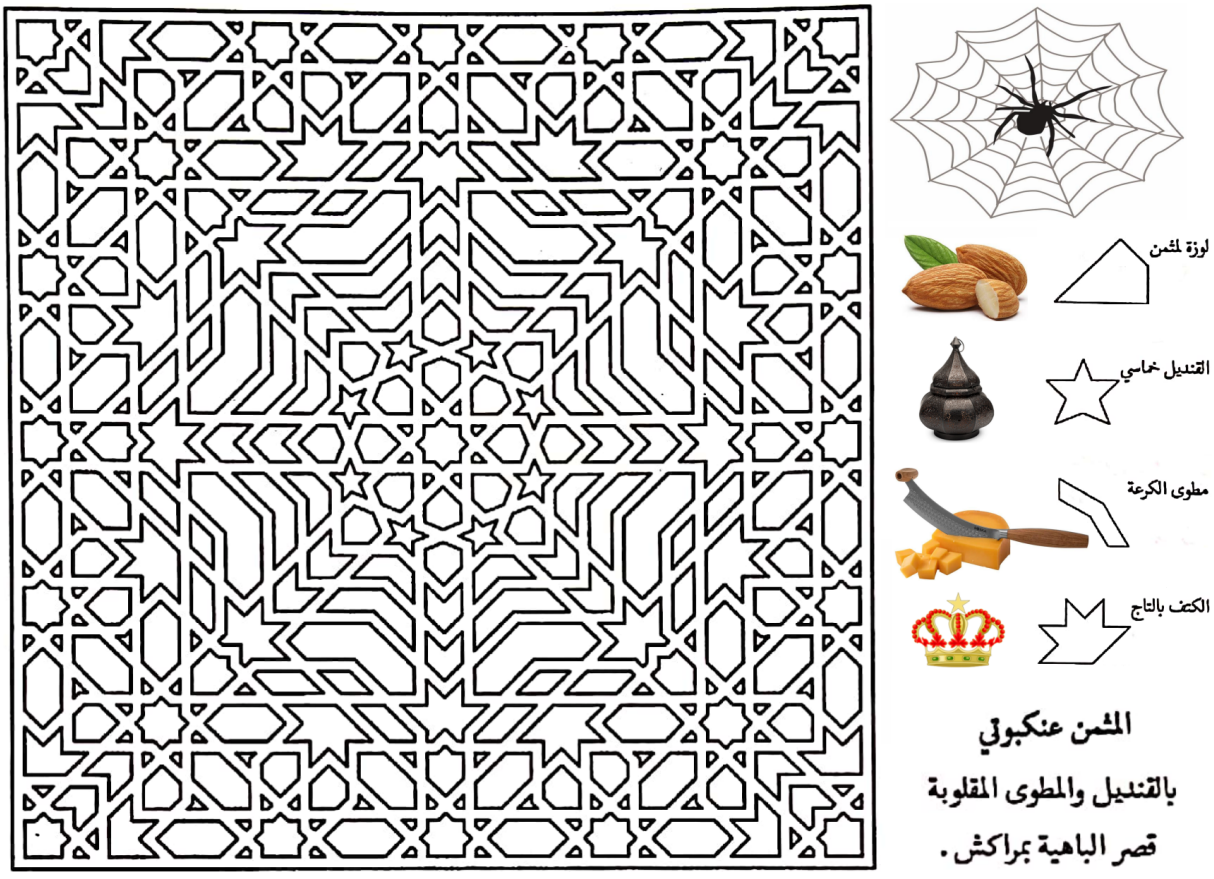
A Glimpse into Moroccan Culture

Moroccan Zellij, a Symphony of Shapes and Colors, embodies a living heritage woven into the depths of the Kingdom's history. Passed down through successive dynasties, it is much more than mere ornamentation : it is a language where every geometric shape and color palette tells a story of ingenuity.

In Marrakech, an imperial city, Zellij is everywhere, adorning mosques, palaces, medersas, and fountains. Visiting landmarks such as **the Kutubiyya**, **Bahia Palace**, or **Dar Ssi Said**, you'll witness the full complexity and magic of this art, born from a fusion of geometric precision and artistic creativity.

Today, Zellij continues to evolve, incorporating new color palettes while preserving **its ancestral technique**. It is not just an art but a national pride, **a celebration of human ingenuity**, and a tangible proof that **beauty** can be both **timeless** and **universal**.

5. Fill in the shapes within the 'Ankabutiya (Spider) : almond shape, lamp, rounded cheese knife, and crown.



Mâallem Bassou

Well, young apprentice, we've reached the end of this fabulous journey ! If you've made it this far, it means you've survived my jokes (*well done !*) and that you're now a master... or almost !

But let's be honest : You now know that a polylobed arch isn't a Moroccan dessert, that a diamond is more than just a shape—it's a love letter to geometry. And you've learned that if you get lost in the souks, Rabat folks aren't the best guides, *but shhh, keep that between us*.

One last lesson before you go : "The secret to being a great Mâallem is to never take yourself too seriously. Look at me : I know everything about Marrakech, yet I still get lost in my own medina when searching for olives in Souk Ablouh !"

And always remember : every mosaic, every pattern, every lobe of an arch tells a story. So, tell your own.

Now, I'm off to sit at a café on Jemaa El Fna square, sip some mint tea, and watch tourists try to haggle for babouches. **Alright, Besslama, young prodigy, and good luck ! *Aha... Ahoua ... And Dima Kukaaaaab !***

About the Author :

I am Farouk Taki Elmerrakchi, an educator, storyteller, and cultural enthusiast from Morocco. My childhood in the vibrant medina and amidst timeless traditions inspires me to create books that merge education with cultural exploration. With a deep passion for geometry, science, technologies, storytelling, and sharing Moroccan heritage, I strive to blend creativity and knowledge, making my work both engaging and enriching for learners and dreamers.

When I'm not writing or teaching, you'll likely find me exploring historical landmarks, watching Tv, savoring a cup of mint tea, or sketching intricate patterns inspired by the stunning Moroccan zellij.